Welcome to Freie Universität Berlin

Mathematics (M.Sc.)
Winter semester 2020/21

Foto: Bavaria Luftbild Verlags GmbH
Who are we?

Prof. Dr. Klaus Altmann
▶ Professor for mathematics at Freie Universität Berlin
▶ Chairman of mathematics master’s program

Isa Adriane Günther
▶ Student of mathematics and English philology at Freie Universität Berlin
▶ Student counselor for mathematics
Student Advisory Service

Isa Adriane Günther
I can help you with…
…planning and organizing your studies
…questions about study regulations
…questions about the recognition of credits
…module registration
…counseling for international students
…and much more!

E-Mail: studienberatung@math.fu-berlin.de
Student Advisory Center

Students advising students
► Student advisory service
► International Counseling
► Mentoring
► EinS@FU-Mentoring

Student Advisory Center/Studentisches Beratungszentrum
Arnimallee 3 / Room 023
Mathematics at FU Berlin

- 19 professors, 18 private lecturers
- 33 working groups

The mathematics master’s program at Freie Universität especially profits from the following top research areas:

- Algebra, Analysis, Geometry, Number Theory and Topology
- Scientific Computing and Bioinformatics
- Discrete Mathematics and Algorithms
Mathematics Master’s Program

- Standard Period of Study: 4 semesters (= 2 years)
  - It is possible to study longer than 4 semesters.
  - Winter term 2020/21: October–March lectures: November – February
  - Summer term 2021: April – September lectures: April – July

- complete 120 LP (credit points) to obtain master’s degree
  - about 30 credit points per semester

- final Grade: 1/3 Master’s Thesis and 2/3 exams and seminar grades
What are LP (ECTS)?

- 1 LP ≈ 30 hours of work
  - preparation
  - attendance
  - exercises
- earn LP by successfully completing modules

Module example:

✓ Lecture: - exam

✓ Tutorials: - regular and active participation
  - a total of 50% of the points on weekly exercise sheets
What are LP (ECTS)?

- Take about **30 LP per semester** (less is possible).
- For a course/module with **two lectures a week**, you usually get **10 LP**
- most courses are structured like this

=> choose about 3 modules per semester
The courses are taught in…

English

(and sometimes in German.)
Which modules can I take?

- Current Offer: Course Catalog: (www.fu-berlin.de/vv/en/fb)


Which modules do I have to take?

- Study and Examination Regulations (www.mi.fu-berlin.de/en/math/stud/mathemaster/index.html)
# Structure of the Master’s Program

<table>
<thead>
<tr>
<th>Basic Modules</th>
<th>Intermediate and Advanced Modules</th>
<th>Supplemental Modules</th>
</tr>
</thead>
<tbody>
<tr>
<td><em><em>5</em> 10 LP = 50 LP</em>*</td>
<td><strong>5 + 5 = 10 LP</strong></td>
<td><strong>30 LP</strong></td>
</tr>
<tr>
<td>Algebra I</td>
<td>Algebra II</td>
<td>Aufbaumodul: Part III</td>
</tr>
<tr>
<td>Differential Geometry I</td>
<td>Differential Geometry II</td>
<td>Ausgewählte Themen A, B, C: (10 LP)</td>
</tr>
<tr>
<td>Discrete Geometry I</td>
<td>Discrete Geometry II</td>
<td>Spezielle Aspekte A, B, C: (5 LP)</td>
</tr>
<tr>
<td>Discrete Mathematics I</td>
<td>Discrete Mathematics II</td>
<td>Aktuelle Forschungsthemen A, B, C: (5 LP)</td>
</tr>
<tr>
<td>Dynamical Systems I</td>
<td>Dynamical Systems II</td>
<td>Vertiefungsmodul: Seminar</td>
</tr>
<tr>
<td>Numerics II</td>
<td>Numerics III</td>
<td>Spezielle Forschungsaspekte: (5 LP)</td>
</tr>
<tr>
<td>Partial Differential Equations I</td>
<td>Partial Differential Equations II</td>
<td>Forschungsprojekt: (10 LP)</td>
</tr>
<tr>
<td>Stochastics II</td>
<td>Stochastics III</td>
<td></td>
</tr>
<tr>
<td>Topology I</td>
<td>Topology II</td>
<td></td>
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<tr>
<td></td>
<td>Number Theory II</td>
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</table>

**Master’s Thesis**

30 LP
In which order should I choose these modules?

- first modules with lower number (an advice not a law): take Algebra I before you take Algebra II

- for some modules prior knowledge requirements are listed in course description

- complete 60 LP before you start your master’s thesis

- in order to take an advanced module, you need to have completed the corresponding basic and intermediate module
  - Algebra I/II + Algebra III => Master’s seminar Algebra (Algebra IV)
For your first semester (winter term 2020/21):

- Basic modules you could take for example:
  - Algebra I
  - Discrete Geometry I
  - Numerical Analysis II

- depending on your prior knowledge, you can also take intermediate and supplemental classes
- it is possible to take classes (Nebenhörerschaft) at TU Berlin and HU Berlin
# Exemplary Study Plan

<table>
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<tr>
<th>Basic Modules</th>
<th>Intermediate + Advanced Modules</th>
<th>Supplemental Modules</th>
<th>LP</th>
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</thead>
<tbody>
<tr>
<td>Algebra I 10 LP</td>
<td>Discrete Geometry I 10 LP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrete Geometry I 10 LP</td>
<td>Numerics II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Numerics II 10 LP</td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

| Stochastics II 10 LP          | Discrete Geometry II 10 LP      |                                           |     |
| Discrete Geometry II 10 LP    |                                 | 10 LP in modules of your choice          | 30  |
|                               |                                 |                                          |     |
|                               | Discrete Geometry III 5 LP      | Master-seminar Discrete Geometry 5 LP     |     |
|                               |                                 | 20 LP in modules of your choice          | 30  |

<table>
<thead>
<tr>
<th>Master's Thesis (in Discrete Geometry)</th>
<th>30 LP</th>
</tr>
</thead>
</table>
Exams

• **first exam** at the end of lecture time: mid-/end- February
• **second exam** before beginning of the new semester: ~ beginning of March
• If you decide to take the first *and* second exam, **the better grade counts**.
• a total of **4 attempts** to pass a course (not attending does not count as an attempt)
• no special **registration for the exam** required (unless your teacher tells you otherwise)
• **Grading System:**
  1,0  1,3  1,7  2,0  2,3  2,7  3,0  3,3  3,7  4,0  5,0
Exams

- Exam methods are still uncertain due to the coronavirus
- Registered on Campus Management
- Prüfungsbüro (Examination Office)
  - Currently telephone consultation hours

Read your [study and examination regulations](http://www.imp.fu-berlin.de/fbv/pruefungsbuero/index.html) for more information.
Studying in times of the Corona pandemic

- No events with attendance
- Various offers online:
  - Whiteboard and Zedat-E-Mails
  - Register with Zedat account
- WebEx
- Updates can be found here (https://www.fu-berlin.de/en/sites/coronavirus/index.html).

Goodwill and creativity!
To Do

► **Modules:**
  ▶ Register on Campus management
  ▶ Register on Whiteboard (department)

► **In general:**
  ▶ Sign up for the department account
Department Account

Why?
➢ Use computers on campus
➢ Use printers on campus
➢ Free Software
➢ Receive department’s e-mails

How?
One-time Login to department’s portal with ZEDAT-account.

Important: Please read your e-mails; you can automatically forward them to your primary e-mail address.

5 https://www.zedat.fu-berlin.de/Benutzerservice/Software
6 https://portal.mi.fu-berlin.de
Support for international students

International tutor: Verena Deege (verena.deege@fu-berlin.de)
International mentor: Isa Adriane Günther

To get all relevant information about support in English, please register on Whiteboard for the course:

Mentoring für Internationale Studierende (19000246)

And come to the international campustour tomorrow at 10am!
Support for international students

For further information, please have a look on our website:


Have a good time and do not hesitate to contact us, if you need any help!
Thank you for joining the meeting.

Are there still any questions?
• Use the chat box.
• Unmute yourself and talk to me.

Good luck with your studies!