

Differential Geometry I: Admin

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Homepage. Information and news concerning the lectures, exercise classes, office hours, literature, as well as the weekly assignments can be found on the course homepage and in GRIPS:

http://www.mathematik.uni-regensburg.de/loeh/teaching/diffgeo_ws2021

<https://elearning.uni-regensburg.de/course/view.php?id=45748>

Virtual teaching. In view of the COVID-19 pandemic, until further notice, this course will be taught remotely, based on:

- **Guided self-study.** There will be reading assignments for each lecture (except the first), based on extensive lecture notes.
- **Remote lecture sessions.** During the time slots of the lectures, there is the opportunity to discuss the topics of these reading assignments and ask questions in a video conference.
- **Remote exercise sessions.** Solutions to the exercise sheets are to be submitted by email to your tutor. These submissions will be graded and returned digitally.
Questions/solutions will be discussed in a video conference during the time slots of the exercise classes.
- **Text chat.** In addition, there is also an informal chat forum for discussing questions or sharing virtual meeting coordinates with fellow participants (the invite link is provided in GRIPS).

Video conferences. For video conferences, we will probably use zoom (uni-regensburg.zoom.us). Access information will only be provided through GRIPS (and not publicly on the homepage). Some guidelines for these video conferences:

- Even though we are not sitting in the same room, it might help to imagine that we do.
- Be on time.
- Do *not* record these meetings. Not even partially.
- Focus your attention on the discussion (and do not try to do zillions of other things at the same time ...).
- Mute your microphone while you are not talking (this can improve overall audio quality significantly).
- If bandwidth and the living situation allows for video, it would be very much appreciated if you could switch on your camera – in this way, for everybody, interaction will be more immediate and more natural.
- Feel free to use the zoom chat to talk to other participants during the lectures (on lecture related topics ...). However, usually, I will not be able to monitor questions on the chat during the lectures.

- It might be a good idea to familiarise yourself with zoom and your hardware before the first meeting.

In case you do not have sufficiently powerful hardware or a sufficiently strong internet connection, this should not be an issue: I will make an effort of integrating all essential information into the lecture notes and there is a GRIPS forum in which you can ask questions.

Lectures. The lectures will take place on Wednesdays (8:30–10:00) and on Thursdays (10:15–12:00). The first lecture will be on Wednesday, November 4, at 8:30. The lecture notes can be found on the course homepage and in GRIPS. The last lecture will be on February 11.

Why are there no recordings of the lectures? During the COVID-19 pandemic, the lectures provide precious interaction time. I want to encourage all participants to actively engage in discussions and both asking and answering questions. Therefore, I want to keep the atmosphere as casual, non-formal, and non-intimidating as possible.

Exercises. Homework problems will be posted on Thursdays (before 10:00) on the course homepage/GRIPS; submission is due one week later (before 10:00) by email to your tutor.

Each exercise sheet contains four regular exercises (4 credits each) and more challenging bonus problems (4 credits each).

It is recommended to solve the exercises in small groups; however, solutions need to be written up individually (otherwise, no credits will be awarded). Solutions can be submitted alone or in teams of at most two participants; all participants must be able to present *all* solutions of their team.

The exercise classes start in the *second* week; in this first session, some basics on manifolds will be discussed.

Quick checks. In addition, the lecture notes contain quick checks that will train elementary techniques and terminology. These problems should ideally be easy enough to be solved within a few minutes. Solutions are not to be submitted and will not be graded. These quick checks will have feedback implemented directly in the PDF.

Moreover, the weekly assignment sheets will also contain simple computational exercises (which also will not be submitted/graded). These will give the opportunity to practise basic computational techniques.

Registration for the course. Please register for the course via GRIPS:

<https://elearning.uni-regensburg.de/course/view.php?id=45748>

There will be two groups of exercise classes:

- Monday, 8:00–10:00
- Tuesday, 8:00–10:00

Registration deadline for the exercise classes: Thursday, November 5, 14:00. We will try to fill the groups according to your preferences. The distribution will be announced on Friday, November 6.

Credits/Exam. This course can be used as specified in the commented list of courses and in the module catalogue.

- *Studienleistung*: Successful participation in the exercise classes: 50% of the credits (of the regular exercises), presentation of a solution in class, active participation (the last two items will be interpreted appropriately during virtual teaching).
- *Prüfungsleistung*: Oral exam (25 minutes), by individual appointment at the end of the lecture period/during the break. As of now, the default will be an online oral exam.

You will have to register in FlexNow for the Studienleistung and the Prüfungsleistung (if applicable).

Further information on formalities can be found at:

<http://www.uni-regensburg.de/mathematik/fakultaet/studium/studierende-und-studienanfaenger/index.html>

Contact.

- If you have questions regarding the organisation of the exercise classes, please contact Matthias Ludewig:

matthias.ludewig@ur.de

- If you have questions regarding the exercises, please contact your tutor.
- If you have mathematical questions regarding the lectures, please contact your tutor or Clara Löh.
- If you have questions concerning your curriculum or the examination regulations, please contact the student counselling offices or the exam office:

<http://www.uni-regensburg.de/mathematik/fakultaet/studium/ansprechpersonen/index.html>

- Official information of the administration related to the COVID-19 pandemic can be found at:

<https://go.ur.de/corona>

In many cases, also the Fachschaft can help:

http://www-cgi.uni-regensburg.de/Studentisches/FS_MathePhysik/cmsms/