Mathematics for Machine Learning

Prof. Ulrike von Luxburg, Winter Term 2020/21

General information

Lectures

Lectures start in the week of Nov 2.

- In the first week of the semester, on Thursday November 5 at 8:30, there is going to be one single zoom conference to discuss the formal setup of the lecture. We will distribute the link to all registered participants by email on November 2. The meeting will not be recorded.
- The contents of the "normal" lectures will be video-recorded in advance and be provided in youtube (links on the course homepage).

Important: to get all the information about this course, including the links to the zoom meetings, you need to register on moodle. The link can also be found on the course webpage:
`https://moodle.zdv.uni-tuebingen.de/course/view.php?id=1164`

Tutorials

Tutorials will be held online via Zoom, in small groups. Tutorials do require your online presence and will *not* be recorded. There are 3 tutorial groups each week.

The teaching assistants are:

Luca Rendsburg (luca.rendsburg@uni-tuebingen.de)
Sebastian Bordt (sebastian.bordt@uni-tuebingen.de)
Solveig Klepper (solveig.klepper@uni-tuebingen.de)
Alexander Conzelmann (a.conzelmann@student.uni-tuebingen.de)

- Group 1: Thursday 10:00-11:30
- Group 2: Thursday 12:00-13:30
- Group 3: Thursday 14:00-15:30

Important: To get assigned to one of the tutorial sessions, please fill the form "Registration for tutorials" on moodle by Tuesday, November 3:
`https://moodle.zdv.uni-tuebingen.de/mod/feedback/view.php?id=43870`
We publish which tutorial session you belong to by Wednesday November 4 on our webpage (see link below).

Course material

Everything related to the course can be found on the following webpage. This includes general information, videos, slides, assignments, literature etc.

`http://www.tml.cs.uni-tuebingen.de/teaching/2020_maths_for_ml/index.php`

Some material is password protected, we are going to send you the password by email (after you have registered). Please do not distribute the password protected material.

Requirements

To pass the whole course, there are two requirements:

- To be admitted to the final exam, you have to achieve at least 50 % of the points in the weekly assignments, on average over the whole semester.
- You have to pass the final exam (see below).

The final grade is going to be the one of the final exam.

Participants of previous years: if you have participated in the Mathematics for Machine Learning lecture last year (2019) and have passed the 50%-criteria for the assignments, you can get admitted to the exam without re-taking the assignments. If this applies to you, please send us an email that contains your name, study degree, matriculation number.

Tutorials

- Tutorials take place each thursday and start the first week on November 5. This is the place where we discuss the weekly assignments and where students can ask questions.
- To get assigned to a tutorial, you need to fill the form in moodle (see above) by Tuesday, November 3. The results of the assignment will be posted on the course web-page by Wednesday, November 4. You need to check this list to know which tutorial session you have to go to from Thursday, November 5 on.
- In case you want to change your group later, you need to find another student with whom you can switch groups. Then contact one of the teaching assistants.

Assignments

For every week there will be an assignment (Übungsblatt) published on Monday. The first assignment will be published on November 2. Your solutions are due on Monday 8:00 of the next week. Hence, the first assignment is due on November 9, 8:00. We encourage you to work in groups to solve the exercises. To hand in the exercises, please form groups of two students (that is, two students jointly hand in solutions). Note that both students need to be familiar with all the solutions their group submits, so they can present them in the tutorial sessions (even if they are online!). You can use the forum in moodle to find a partner.

Note that we are not going to provide any "official solutions" to the assignments — these will be discussed in the tutorial sessions. You are encouraged to attend the tutorial sessions and discuss your solutions. However, attendance is not mandatory.

Exams

Due to covid, it is still a bit unclear how the final exams are going to take place. The current plan is as follows: The final exams will take place in Tübingen, and you need to be physically present.
In any case, there is going to be one exam at the beginning of the semester break and one at the end of the semester break (dates are not fixed yet because they are organized through a centralized process).
You can choose yourself which of the two exams you would like to take. However, please note that in case you miss the exams, you cannot simply take an oral exam instead, you will have to wait until next year's exams take place.

The general mode for exams is: You are not allowed to bring any material (books, slides, etc) except for what we call the controlled cheat sheet: one side (A4, one side only) of handwritten (!) notes, made by yourself. This cheat sheet is handed in with the exam.

Suggestions, feedback, ...

If you have suggestions how to improve the lecture or tutorials, please do talk to us, for example in the Questions and Answer sessions. In case you want to give anonymous feedback, you can use an anonymous online form, the link is on the course webpage.