

General information

Lectures

Lectures start in the week of April 20.

- In the first week of the semester, on Tuesday April 21 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. The meeting will not be recorded.
- The contents of the “normal” lectures will be video-recorded in advance. At the beginning of each week, the videos for this week will be provided in youtube (links will be provided on the course homepage).
- Additionally, we will try the format of a flipped classroom: from the second week on, we will use the assigned lecture slot on Thursday (8:30 in the morning, the first time at April 30) to discuss the contents of the past lectures and to answer questions you might have. These lectures are going to be done via zoom, and we will send the link to all registered participants by email. These meetings will not be recorded.
- In the (unlikely?) case that later in the semester we can resume to a “normal” teaching mode, the booked slots and rooms would be the following ones:
 - Tuesday 8:15 - 10:00, Hörsaal 036, Neuphilologicum, Wilhelmstraße 50
 - Thursday 8:15-10:00, Hörsaal 22, Kupferbau, Hölderlinstraße

Important: to get all the information about this course, including the links to the zoom meetings, you need to register on Ilias. The link can also be found on the course webpage:

https://ovidius.uni-tuebingen.de/ilias3/goto.php?target=crs_2393547

Tutorials

Tutorials will be held online via Zoom, in small groups. Tutorials do require your online presence and will *not* be recorded. There are 5 tutorial groups each week.

The teaching assistants are:

Sebastian Bordt (sebastian.bordt@uni-tuebingen.de)
David Künstle (david-elias.kuenstle@uni-tuebingen.de)
Martina Contisciani (martina.contisciani@tue.mpg.de)
Nicolò Ruggeri (nicolo.ruggeri@tue.mpg.de)
Rabanus Derr (rabanus.derr@student.uni-tuebingen.de)

- Group 1: Tuesday 14-16
- Group 2: Tuesday 16-18
- Group 3: Wednesday 14-16
- Group 4: Wednesday 16-18
- Group 5: Thursday 16-18

Important: To get assigned to one of the tutorial sessions, please fill the following form

<https://forms.gle/cfUzCPbBEhUiSy1DA> (link is also on our webpage)

by **Thursday, April 23**. We publish which tutorial session you belong to by Monday April 27 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_statistical_learning/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 Statistical 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 you would like to do this, please send us an email that contains your name, study degree, matriculation number). If you have participated in the course in 2018 or earlier, any exam admission has expired and you will need to re-take the assignments to be admitted to the exam.

Tutorials

- In the first week of April 20, there will be no tutorials.
- In the second week of April 27, there will be only one tutorial session. This tutorial will give an introduction to Python. You should attend this tutorial if you are not already familiar with Python and Numpy. It will take place on Wednesday April 29 from 16-18 via zoom, and we will distribute the link by email.
- From the third week (May 4), there will be 5 parallel tutorial sessions every week.
- To get assigned to a tutorial, you need to fill the form (see above) by Thursday, April 23. The results of the assignment will be posted on the course web-page by Monday, April 27. You need to check this list to know which tutorial session you have to go to from the third week on.

Assignments

For every week there will be an assignment (Übungsblatt) published on Thursday. The first assignment will be published on April 23. Your solutions are due on Thursday 14:00 of the next week. Hence, the first assignment is due on April 30, 14:00. Some of the exercises are theoretical, some of them are implementation exercises in Python. 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!). To submit your solutions, please proceed as follows:

- For the theoretical exercises, generate a pdf file out of your solutions: either by scanning a handwritten solution (the writing needs to be legible) or by using LaTeX. Name your solution `assignment[number]-[member1]-[member2].pdf`
- For the implementation exercises you will find a Jupyter notebook file coming with your assignment. Complete the code in this file and save it as `assignment[number]-[member1]-[member2].ipynb`.
- Then send all your files to your teaching assistant by email. As email subject always use `SML2020-assignment[number]`. Your email needs to be sent before the due date ends. You will know who your teaching assistant is after the tutorial assignment, i.e. by April 27, evening.

Note that we are not going to provide any “official solutions” to the assignments — these will be discussed in the tutorial sessions. You are expected to attend the tutorial sessions and discuss your solutions. However, you will get your corrected submissions, both scanned text and coding exercises, back to you via email.

Python

To solve the implementation exercises you will need to work with Python 3. In particular we will use Jupyter notebooks. We suggest that you use the Anaconda distribution, where Jupyter notebook and all required packages are already included. You can download it from the following link for Windows, Linux and Mac. Please use the version with Python 3.7.

<https://www.anaconda.com/download/>

If you do not want to use anaconda please install the following packages:

`numpy, scikit-learn, pandas, matplotlib, jupyter`

We will give an introduction to Python in the tutorial session in the second week.

Exams

At this point in time, it is still unclear how the exams will take place due to the Covid-19 restrictions. Our plan would be to hold written exams at the end of the semester, and the times have already been fixed:

- First exam: 30.7.2020 between 10:30 and 12:30, Audimax (Neue Aula)
- Second exam: 8.10.2020, Audimax (Neue Aula)

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.

Questions and answers

This semester will start as an online semester. This is a new experience for all of us, students and teachers alike. To answer your questions about the lecture, there will be the flipped class room with Ulrike von Luxburg via zoom (see above).

Additionally, the tutors are going to offer Question and Answer sessions during the first weeks of the semester (via zoom). There you can ask organizational questions regarding the lecture, tutorials and assignments. The first such session will take place on Wednesday 22, 16:00-16:30. The link will be distributed by email.

If you have a question, please read this information sheet carefully. Then check our course website that we will regularly update with the newest information. Next, have a look at our forum on Ilias, where we are going to answer your questions. The advantage of the forum is that somebody else might have had the same question before. So please first check if your question has already been asked or answered on the forum. If not, submit a new entry, and we will be happy to get back to you. Please be patient, jointly we will manage!

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.