

Computational Intelligence UE

SS 2023

Harald Leisenberger,
harald.leisenberger@tugraz.at

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Outline

1 Part 1: Organization / General Information

2 Part 2: Brief Introduction to Python

Time slots

- Group 1: Tuesday, 13:15 - 14:00, Lecture room i12
- Group 2: Wednesday, 12:30 - 13:15, Lecture room i11
- 12 sessions over the semester

Schedule

- Live meetings will have character of Q- & A- sessions (attendance is not compulsory)
- Discussion is based on video material that will be uploaded in advance of each session in TUBE
- In the videos, there will be presented small theoretical examples and Python codes that complement the lecture part
- Introduction of homework assignments (handed out in Teach Center)

Homework assignments

- During the semester: 4 assignment sheets (each 25 points + potential bonus points)
- Groups with **at most 3 students** are allowed
- Working in groups is recommended (high workload)
- For a positive grade, at least 50 points are required

Groups

- Use (for example) the Teach Center to form groups
- The groups do not need to be the same for all assignments!
- When submitting an assignment, all members of a group have to be declared on a **cover sheet** that will be provided in the Teach Center
- Assignments have to be submitted before end of the deadline in the Teach Center

Teach Center

- All relevant course material (python codes, assignments, additional exercises...) will be provided in the Teach Center
- Please make frequent use of the TC forum whenever you have a question regarding organization, homeworks...
- When submitting an assignment, all members of a group have to be declared on a **cover sheet** that will be provided in the Teach Center
- No newsgroup in use, all communication over Teach Center (or e-Mail)

Preliminaries

- Not officially required, but highly recommended
- Basic courses in mathematics, especially probability theory
- Experience in programming (not necessarily Python)

Time schedule for homework assignments

Planned Schedule for Summer Term 2023

Nr.	Hand out	Deadline	Content
1	We., March 29	We., April 26	Max. likelihood estimation, Lin. models
2	We., April 26	We., May 17	Logistic regression, Neural networks
3	We., May 17	We., June 7	Support vector machines, Kernels
4	We., June 7	We., June 28	EM, k-Means, PCA

Question hours with Tutors

One week before each deadline, there will be an extra live Q- and A-session tutored by a study assistant (time slots/rooms to be announced):

- Tobias Donat (HW. 1), tobias.donat@student.tugraz.at
- Maximilian Graber (HW. 2+4), maximilian.graber@student.tugraz.at
- Tobias König (HW. 3), t.koenig@student.tugraz.at

For further details see the file with the course logistics in the TC.

Any questions so far?

Introduction to Python

See separate file (Teach Center)

Practical 1 - Introduction to Python and NumPy.ipynb

(open with *Jupyter Notebook*, included in *Anaconda*)