

Practicals Overview

Informatics 1 for Biomedical Engineering

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Institute for Interactive Systems and Data Science

Overall Goals

- Understanding the Mystery of Writing “Code”
 - Basics, fundamental concepts, variables, control flow, cleanliness
- Becoming familiar with Python (3)
 - Setup, packages, capabilities and limitations
 - Establish a smart coding standard (mostly following PEP 8¹)
- Computational Problem Solving
- Data in the Biomedical Domain
 - Formats, usefulness, problems, approaches

¹<https://www.python.org/dev/peps/pep-0008/>

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 - Establish a smart coding standard (mostly following PEP 8¹)
- Computational Problem Solving
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 - Formats, usefulness, problems, approaches
- Encourage Experimentation
 - Learning by doing

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Assignment Overview

- Python 3.5⁽⁺⁺⁾ (using Anaconda²)
- Storyline: Working on real data
- 3 + 1 Assignments
 0. Python 3 - Setup (0pt)
 1. Reading and Writing Data (10pt)
 2. Processing Biomedical Data (15pt)
 3. Producing and Presenting Results (25 + 5pt)
- All assignments are solo tasks!
- **To Pass:** > 50% and hand in all assignments!

²<https://www.anaconda.com/download/>

Submissions

- Submission via the ISDS Palme
 - Additional welcome e-mail
- You submit archive files
 - .zip / .tar / .tar.gz
 - Precise instructions on assignment sheets
 - **NO PASSWORDS!**
- All deadlines are hard.
- Clean up ipython/jupyter comments
- Separate Testing Platform
 - To perform quick tests on your code
 - Will be published with the announcement of Assignment 1
 - **Please don't break it!**



Important Dates

- Assignment hand-out at the end of the VO lecture
 - (Do not pull task sheets earlier!)
- Deadlines always at 23:59:59
- Hand-outs and deadlines
 - HW 0: 2017-10-10 — 2017-10-17
 - HW 1: 2017-10-18 — 2017-11-14
 - HW 2: 2017-11-15 — 2017-12-05
 - HW 3: 2017-12-06 — 2018-01-12

Code Reviews (Abgabegespräche)

- Mandatory!
- 2 dates
 - Mid December 2017 (HW1, HW2)
 - Mid January 2018 (HW3)
- Explain your code
- Answer questions
- Get feedback
- Can cover all previous assignments

DO NOT's

- Hand in empty files
- Plagiarising
- Malicious code
- 0-tolerance policy!



Negative grade!

OPTIONAL

(But highly encouraged!)

- Weekly practice sessions
 - Check your lecture group!³
- Smaller groups
- Focussed writing code
 - Short topic presentation
 - Hands-On examples
 - Student programming
- BYOD
 - (Your laptop)
- jupyter notebooks

³If you visit a different group please notify that group's tutor

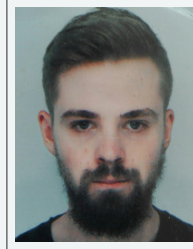
Your Tutors



Yasmine Heyer

yasmine.heyer@student.tugraz.at

- (G 3) Fr 08:00 — 10:00



Maximilian Riedel

riedel@student.tugraz.at

- (G 1) MO 08:00 — 10:00



Florian Hofer

f.hofer@student.tugraz.at

- (G 4) MI 13:30 — 15:30



Benjamin Rohr

b.rohr@student.tugraz.at

- (G 2) MI 10:00 — 12:00
- (G 5*) DI 10:00 — 12:00

Tutorial Schedule

Week	Topic
41	Setup Python3, anaconda, packages, jupyter
42	Variables & Datatypes, File I/O
43	Python Data Structures
44	- no session -
45	Control Flow Statements
46	Functions, Parameters, and Return Values
47	Slicing
48	Computations with numpy
49	- no session -
50	Visualising Information
02	Question Hour
03	Preview Info2BM

How To: Asking Questions

HW-/Python related

1. Newsgroup
2. Tutor session
3. Email
4. Consultation-hour

Organisation

1. Newsgroup
2. Email
3. Consultation-hour

Personal

1. Email
2. Consultation-hour

info-bm

(tu-graz.lv.info-bm)

DO

- Ask questions
 - Course organisation
 - Lecture
 - Tutor sessions
 - Practicals
- Help your colleagues

DON'T

- Post your code
- Post HW solutions
- Ask personal questions
- Use fake names
- Troll

Info1BM Wiki

(<https://palme.iicm.tugraz.at/wiki/Info1BM>)

- Dates
- Updates
- Handouts & Slides
- Assignments
- All this information again

See you next Wednesday!