

Dear participants of the Deep Learning Course for Image Analysis,

This **in-person** course runs from **Monday, July 6th to Friday, July 10th, daily from approximately 9:00 to 17:00.**

Our goal is to teach you how to use and evaluate deep learning for image analysis of microscopy images using PyTorch, a Python library for deep learning, and other popular tools. The course includes lectures, exercises, and a project utilizing participant data. Basic Python knowledge is required (see resources below).

Practical Information & Location

- **Location:** ENI (Griesebachstraße 5, Nord Campus). Please enter from the back entrance of the building.
- **Timetable/Map/Preliminary info:** Find the online Timetable, a map, and other information here [Timetable](#).
- **What to Bring:** Your own laptop (no software installation needed; we'll use GWDG resources).

Before the Course: Action Items

1. **Check GWDG Login ASAP:** Confirm access to the computing resource. Go to <https://jupyter.hpc.gwdg.de/> and log in with your AcademicCloud. Contact us immediately if you have problems.
2. **Prepare Project Data:** Bring data you want to apply the methods to. Please upload it to your [ownCloud](#) or similar cloud storage.
3. **Recap Python Basics:** Familiarize yourself with Python basics, data science (especially NumPy), and basic image processing in Python (e.g., *skimage* examples like Thresholding, Connected Component analysis).
 - Python basics: <https://www.learnpython.org/en/Welcome>
 - Data Science in Python: <https://jakevdp.github.io/PythonDataScienceHandbook/>
 - Image processing in python: Check some modules of the courses [Bioimage Inspection](#) and [Bioimage Analysis](#) and the “skimage napari” examples withi. In particular make yourself familiar with the concept of segmentation, thresholding, connected component labeling and label mask.
4. **Optional Background:** Watch last year's machine learning videos: <https://owncloud.gwdg.de/index.php/s/ajgmYEkwpmRcvt9>

We look forward to seeing you! Please reach out with any questions.