

The assessment for the module **Image and Signal Processing** comprises two intermediate examinations, a group project and a final examination. The final grade is calculated according to the following overview:

Assessment	Weight
Experience grade	30%
Grade of intermediate exam I	5%
Grade of intermediate exam II	5%
Grade of course project (teams of 2-3)	20%
Final written module examination	70%

Intermediate exams

Each of the two first parts of the module is completed with a graded, written examination. The dates can be found in the semester plan. The intermediate exams last 30 minutes and take place during the first of the two practice sessions. The aim of the intermediate exams is to bring you up to a good level of understanding before you start the group projects.

Both exams are written. You may bring the following aids to the exam:

- Paper and writing utensils
- Two pages of summary (A4, both sides, handwritten or printed)
- A calculator
- A dictionary¹

If you miss an examination due to illness (medical certificate / Arztzeugnis required), the examination can be repeated in an oral examination within 10 days of the original examination date.

If you miss an exam for a planned reason, you must apply for a dispensation from the tutor at least one week in advance.

If you miss the exam without an excuse, the exam will be graded with a 1.

You will be notified of your grade by e-mail.

¹At least one copy will be provided by the tutor on site.

Group projects

In teams of two to three people, you will deepen your practical knowledge in a project work. Your task is to process real-world data using signal or image processing methods to extract or enhance the information contained in the signals. The main document you will be required to turn in is a Jupyter notebook in which you motivate and describe the problem, explore and implement method, and discuss the relevant parameters and limitations. The target audience for the notebook are future students of the course.

Excellent or particularly instructive notebooks will be made available for reference in future editions of the course. You will, of course, be acknowledged for your contributions.

The **project timeline** is as follows (see also semester plan, SW: semester week):

- **SW 7:** Topic fair. Discussion of possible project ideas. Bring in your own ideas!
- **SW 9:** Finalization of problem statement and team formation
- **SW 13:** Question and answer session
- **SW 16:** Submission of the Jupyter notebook (end of first week of semester break)

The following **deliverables** must be provided in a single ZIP folder:

- A functional Jupyter notebook with the tutorial (main document)
 - A PDF version of the notebook with all its outputs. To generate a PDF:
 - Run and save your entire Jupyter notebook
 - Open a terminal and run the following command
- ```
$ jupyter nbconvert --to html "path/to/your/notebook.ipynb"
```
- Open the document in a web browser (Opera works best!)
  - Save as PDF
  - Data and other resources used by the notebook (or instructions for downloading or installing the materials)

All students must participate in the implementation (programming) and understand the results obtained. The use of generative AI tools is permitted (and encouraged) but must be declared in accordance with [University guidelines](#).

In addition to the project, you must read (at least) three other projects and give feedback on them (**peer review**). The exact format will be announced at the end of the semester.

**Grading** will be based on the grading scheme provided (see below).

## Final exam

The final exam (written, duration: 60 minutes) will take place during the examination period. Further information will be announced at the end of the semester.