

<b>Presenters</b>	Dr Oliver Lang	( <a href="mailto:oliver.lang@jku.at">oliver.lang@jku.at</a> ,	S03 0503, +732 2468-5682)
	DI Matthias Wagner	( <a href="mailto:matthias.wagner@jku.at">matthias.wagner@jku.at</a> ,	S03 0529, +732 2468-5688)
	DI Bernhard Plaimer	( <a href="mailto:bernhard.plaimer@jku.at">bernhard.plaimer@jku.at</a> ,	S03 0535, +732 2468-5696)

## Organisation

Approximately one week before the according tutorials, we will provide on-demand videos with examples (V1-V6) that should deepen the understanding of the theoretical concepts presented in the lecture. In addition, in total 5 assignments will be handed out at the same dates (A1-A5). You are expected to watch and go through the provided material **BEFORE** the subsequent tutorial. **The tutorials are intended to be supporting Q&A sessions with focus on the examples / current / previous assignments; hence it is up to you to use this chance to eliminate any misunderstandings / uncertainties.** In general, the assignments are solved in **groups of two** and submitted via Moodle according to the schedule above. You **have to sign up** for any of the groups latest by March 29, 2024. Basically, there are two options to join a group:

- Find your partner and both of you sign up for the same group in Moodle (you are not restricted to the course you signed up for, that means, if you are in 382 047 you can find your partner in any of the courses 382 064 – 070).
- If you cannot find a partner just sign up for a free group in Moodle. Another student can join this group if he or she is also looking for a teammate.

For the case that during the semester it turns out that your partner is not contributing enough / at all, you need to let us know immediately!

## Assignment Submission

The assignment solutions (report, source codes, data, figures, etc.) are submitted via Moodle upload.

Each submission consists of 2 files:

- The assignment report as a single \*.pdf file.
- Source codes, etc. (as specified in the assignment) in a single archive (\*.zip, \*.rar).

The files naming must follow this scheme:

- Assignment<Ass.No> <GroupNo>.pdf
- Assignment<Ass.No> <GroupNo>.{zip,rar}

where the group number <GroupNo> depends on the group you sign up for.

For example, group 17 needs to use the following file naming scheme:

1. Assignment	2. Assignment	etc
Assignment1 17.pdf	Assignment2 17.pdf	...
Assignment1 17.zip	Assignment2 17.zip	...

## a.) Report

- The report must be structured such that the individual exercises are clearly separated (e.g. use (sub-) section headings). If an exercise only requires the implementation of a function, you still need to add a sub-section to the report and mention the name of the source file which contains the function code.
- The report contains *all results* (text, formulas, plots, etc.), but in general **no** source code, except maybe for important code lines which you also discuss in the accompanying report text.
- The first page of the report must name
  - Course Title / Assignment number (e.g. Digital Signal Processing Tutorial 2023S, Assignment 1)
  - Title
  - Group number
  - Names of the group members (= author information) with student number
- **An example report in German language is available on Moodle: Musterprotokoll.pdf.**
- You can use the word-processor of your choice. A report template is available for Latex on Moodle.

## b.) Archive File

It shall contain

- **All m-Files/mat-Files/Python code**, so that the code can be executed and verified that it is running correctly.
- Results which cannot be included in the report, such as processed acoustic signals or animations.
- Nothing else.

## Checklist

Before submission, please check the following points:

- Are the filenames correct?
- Your report contains the correct author information on the first page.
- All Matlab/Octave programmes must be executable. For each exercise you need to create a separate file with a clear name (e.g. for the first exercise in assignment 1: assignment1\_1.m).
- If necessary, only small, relevant and described source code sections are included in the report.
- Complete axis annotation for all diagrams. If the assignment asks for a particular plot, it should be added to the report.
- To distinguish between continuous and discrete time/frequency signals, use (.) for continuous and [.] for discrete signals.
- Only use the %-symbol for Matlab/Octave comments.

Please adhere to the instructions in this document. Otherwise we might have to reduce your grading.

## Software

Part of the course will use the simulation software Matlab (<http://www.mathworks.de>). Please note that from this year on we do have a **Campus License for the usage of Matlab** (provides everything you need at no cost). Please check out the Matlab subsection at the IM website (<https://help.jku.at/im/de/software/software-fuer-studierende>). An open-source alternative with an identical coding syntax is Octave (<http://www.gnu.org/software/octave>) which provides the required functionality (make sure to install all available packets). Also, Python can be used but will not be

supported. Hence, we strongly encourage you to use Matlab as it may extend your programming language repertoire and we are able to provide the best support.

## Grading

Your course grade will be based on the submitted assignment solutions which are equally weighed.

- Your assignment must be submitted before the deadline or you will receive 0 points for this assignment.
- Each group must work on the assignments individually. In cases of plagiarism and/or collusion a grading of 0 points is automatically applied.

For each assignment you can achieve at maximum 100 points. There are five equally weighted assignments which results in the following total course grading scheme:

Sehr Gut 1	Gut 2	Befriedigend 3	Genügend 4	Nicht Genügend 5
$\geq 437,5pts.$	$\geq 375pts.$	$\geq 312,5pts.$	$\geq 250pts.$	$< 250pts.$