Matlab and data analysis class

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The participants will learn the **basics of programming** and in particular how to use **Matlab** for universal **data analysis**. It is a course for beginners. The aim is that participants without prior programming knowledge learn how to use Matlab for fully automated data analysis, statistical evaluation and presentation of results.

Target group:
MD-PhD and other MD/PhD students who want to learn a versatile program for their data analysis and want to acquire basic programming knowledge. MD-PhD students will gain 6 CP with this class.
The class is open as "Global Classroom" to the students of our partner universities.

Prerequisites:
Basic computer skills. Programming knowledge is **not** a prerequisite.

Matlab is:
- A calculator for interactive calculations
- A programming language that also provides complex functions with one command
- A tool for simple and complicated calculations with large amounts of data
- A platform to summarize and automate different steps of the data evaluation (e.g. read in data, summarize, statistically evaluate, create graphics and save)
- A Swiss Army Knife for data analysis and simulations

Course contents:
- Interactive calculations with Matlab
- Automation for repeated tasks, e.g. the similar analysis of several data sets
- Fundamentals of programming: functions, loops, if statements
- Graphical representation of data/simulations/results
- Basic statistics with Matlab
- Import of data from files

Structure of the course:
A few minutes of lecture, then immediately trying out what you have just learned on the computer before continuing with the next topic in the lecture. Regular small exercises for consolidation and self-control.

Course dates:
Four afternoons, **Monday March 23, Wednesday March 25, Monday March 30, Wednesday April 1, 2026, 2:00 PM to 6:00 PM** as online meeting in Microsoft Teams. The parts of the course strongly build on each other. Participation at all days is therefore absolutely necessary. All participants will need to have installed Matlab on their own computer. Installation instructions will follow with the confirmation of registration.

Binding registration:
Via email to office-lauterbach@uni-saarland.de **until March 2, 2026**. Indicate your name, lab, and if you are in the MD-PhD program. The limited places are allocated according to the date of registration.

Contact:
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