

Robotics and Navigation in Medicine: Schedule
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Schedule – Summer Term 2025

Robotics and Navigation in Medicine

Note: Preliminary schedule is subject to change.

Date: 08.04.2025

Date	Lecture	Tutorial	Project Milestones
10.04.	Introduction	–	–
17.04.	Robotics: Basic principles	ROS tutorial	Registration form
24.04.	Robotics: Kinematics	Transformations	–
01.05.	May Day		
08.05.	Robotics: Paths and trajectories	Direct kinematics	Project plan
15.05.	Navigation: Calibration	Inverse kinematics	Direct kinematics
22.05.	Navigation: Localization	Path and trajectory planning, camera calibration	Inverse kinematics*
29.05.	Holiday Break		
05.06.	Navigation: Image guidance	Inverse kinematics and path planning	Camera calibration & Trajectory planning
12.06.	–	Parallel kinematics and localization	Robotic Scanning Node
19.06.	–	–	Hand-Eye calibration
26.06.	–	–	Model registration
03.07.	–	–	Planning of feasible needle paths
10.07.	–	–	Project finalization
14.07 - 18.07.	–	–	Project presentations
07.09.	–	–	Project report

Note: Sessions for working with the robot in the Laboratory start after the holiday break.

*Working inverse kinematic required to work with robot on site.

Milestones marked in **bold** are deadlines that are **mandatory** and directly affect bonus point grading. Other milestones should serve as a guideline for the project plan.