

Schedule – Summer Term 2022

Robotics and Navigation in Medicine

Date	Lecture	Tutorial	Project Deadline
07.04.	Introduction	–	–
14.04.	Robotics: Basic principles	ROS tutorial	Registration form
21.04.	Robotics: Kinematics	Transformations	Project plan
28.04.	Robotics: Paths and trajectories	Direct kinematics	–
05.05.	Navigation: Calibration	Inverse kinematics	Direct kinematics
12.05.	Navigation: Localization	Incremental inverse kinematics and camera calibration	–
19.05.	Navigation: Image guidance	Path planning and trajectory planning	–
25.05.	–	–	Inverse kinematics
26.05.	Holiday break	Holiday break	–
01.06.	–	–	Trajectory Planning & Camera Calibration
02.06.	Backup*	Parallel kinematics and localization	–
08.06.	–	–	Hand-Eye calibration
09.06.	–	Backup*	–
15.06.	–	–	Model recording and registration
22.06.	–	–	Planning of feasible needle paths
29.06.	–	–	Tuning
04.07-08.07.	–	–	Project presentation
15.08.	–	–	Project report

* Reserved time slot to be used in case one of the earlier lectures/tutorial sessions needs to be canceled.