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Course Information

Schedule

Week	Date	Topic	Test
1.	Sept 6	Requirements. ROS introduction. Setup the development environment.	-
2.	Sept 13	Setup the development environment. Linux principles. ROS principles. Running examples. ROS package. Basics of ROS communication, implementation of publisher and subscriber.	Project topic announcements.
3.	Sept 20	Python principles. Practicing ROS communication, solving examples.	-
4.	Sept 27	Versioning, Git. Project labor I.	-
5.	Oct 4	Principles of robotics. Programming a da Vinci surgical robot in simulated environment I.	-
6.	Oct 11	Principles of robotics. Programming a da Vinci surgical robot in simulated environment II.	**Test 1**: ROS princiles, publisher, subscriber. Python principles. Principles of robotics.

Week	Date	Topic	Test
7.	Oct 18	Principles of robotics. Programming a da Vinci surgical robot in simulated environment III.	-
8.	Oct 25	Project labor II.	Project milestone.
10.	Nov 8	Roslaunch, ROS parameter server. Rosbag.	-
11.	Nov 15	Kinematics, inverse kinematics, programming a simulated robot arm in joint space and workspace I.	-
13.	Nov 29	Kinematics, inverse kinematics, programming a simulated robot arm in joint space and workspace II.	-
14.	Nov 6	-	Project presentations. Retake. **Test 2**: Roslaunch, ROS parameter server. ROS service. ROS action. Kinematics, inverse kinematics.

> ⬛ **Warning**
>
> The schedule may change during the semester!

Course Requirements

Project

- Proved to be the student's own work

- Running results valid output

- Grading: completeness of the soultion, proper ROS communication, proper structure of the program, quality of implementation, documentation

Grading

Personal attendance on the classes is mandatory (min 70%).

To pass the course, Tests and the Project must be passed (grade 2). One of the Test can be taken again.

> **Grade**
>
> $Jegy = (Test1 + Test2 + 2 \times Project) / 4$

Course Supervisor

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Teachers

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irob-saf

(iRob Surgical Automation Framework)

https://github.com/ABC-iRobotics/irob-saf

PlatypOUs

https://github.com/ABC-iRobotics/PlatypOUs-Mobile-Robot-Platform