



# Home

## Course Information

## Schedule

Week	Date	Topic	Test
1.	Sept 15	Requirements. ROS introduction. Setup the development environment.	-
2.	Sept 22	Setup the development environment. Linux principles. ROS principles. Running examples. ROS package. Basics of ROS communication, implementation of publisher and subscriber.	Project topic announcements.
4.	Oct 6	Python principles. Practicing ROS communication, solving examples.	-
5.	Oct 13	Principles of robotics. Programming a da Vinci surgical robot in simulated environment I.	-
6.	Oct 20	Principles of robotics. Programming a da Vinci surgical robot in simulated environment II.	-
7.	Oct 27	Project labor I.	<b>Test 1</b>
8.	Nov 3	ROS 2 Launch, Param, Bag	-
9.	Nov 10		-

Week	Date	Topic	Test
		Kinematics, inverse kinematics, programming a simulated robot arm in joint space and task space I.	
10.	Nov 17	Kinematics, inverse kinematics, programming a simulated robot arm in joint space and task space II.	-
11.	Nov 24	Kinematics, inverse kinematics, programming a simulated robot arm in joint space and task space III.	-
12.	Dec 1	Versioning, Git. Project labor II.	-
13.	Dec 8	-	<b>Test 2</b>
14.	Dec 15	Project presentations.	<b>Test retake</b>
14+1.	Dec 19 (Tue)	-	<b>Mid-term replacement</b>

### 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 solution, 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

$$\backslash(\text{Jegy} = (\text{Test1} + \text{Test2} + 2 \backslash\text{times Project}) / 4\backslash)$$

## Course Supervisor

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## Teachers

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**ÓBUDAI EGYETEM**  
BEJCZY ANTAL INTELLIGENS  
ROBOTTECHNIKAI KÖZPONT

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<https://irob.uni-obuda.hu>

irob-saf

(iRob Surgical Automation Framework)



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

PlatypOUs

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