

ENG-615

**Topics in Autonomous Robotics**

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<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Robotics, Control and Intelligent Systems		Obl.

Language of teaching	English
Credits	4
Session	
Exam	Project report
Workload	120h
<b>Hours</b>	<b>56</b>
Courses	28
TP	28
<b>Number of positions</b>	<b>20</b>

**Frequency**

Every 2 years

**Remark**

Next time: Spring 2019

**Summary**

Students will be introduced to modern approaches in control and design of autonomous robots through lectures and exercises.

**Content**

- Robotics for Rehabilitation and Assistance (Dr Mohamed Bouri)
- Locomotion Control (Prof. Auke Ijspeert)
- Mobile Robot Design (Prof. Francesco Mondada)
- Design and Control of Prosthetic Devices (Prof. Silvestro Micera)
- Small Scale Robotics (Prof. Selman Sakar)

**Note**

The course is organized into slots, one per day on a specific topic. Each slot is composed of 6 hours of lectures followed by practical and theoretical exercises that students will do at home. Each slot may change each year. We may also have additional slots/topics given by guest lecturers, who are renown researchers in the taught topic. Students will be assessed on the reports of their exercises.

**Keywords**

Evolutionary Mobile Robotics Modular Locomotion, Human-robot, Interaction, Mobile Robot Design

**Resources****Moodle Link**

- <http://moodle.epfl.ch/course/view.php?id=252>