

## **Service Robotics, 5 HE credits**

*Servicerobotik, 5 hp*

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Established: 2018-12-21

Established by: Department of Engineering Science

Applies from: H19

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### **Learning outcomes**

After completion of the course, the student should be able to demonstrate:

- Knowledge and understanding about concepts within probabilistic robotics.
- In-depth knowledge and understanding about methods for localization and path planning.
- In-depth knowledge and understanding about the construction and function of service robots.
- Skill and ability to use, combine and analyse existing algorithms for control of service robots.
- Skill and ability to develop and deploy a service robot system.

### **Entry requirements**

Degree of Bachelor of Science in computer engineering, electrical engineering, mechanical engineering or industrial engineering and management. Additionally the Bachelor of Science degree must be comprised of a minimum of 5 HE credits in programming and 15 HE credits in mathematics. Verified knowledge of English corresponding to the course English B/English 6 in the Swedish Upper Secondary School (high school) or equivalent.

General entry requirements and approved result from the following course/courses:

SST600-Sensor technology and

DEA700-Design of Automationsystem and

POP700-Manufacturing Optimisation or the equivalent.

### **The forms of assessment of student performance**

The course is assessed by laborations, with written reports and oral presentations, individual and in groups.

### **Other regulations**

Course grading: F/Fx/E/D/C/B/A - Insufficient, Insufficient- more work required before the credit can be awarded, Sufficient, Satisfactory, Good, Very Good, Excellent

Course language: The teaching is conducted in English.

General rules pertaining to examination at University West are available at [www.hv.se](http://www.hv.se).

If the student has a decision/recommendation on special support due to disability, the examiner has the right to examine the student in a customized examination form.

### **Course Overlap**

AUR600

Read about course overlap in the Swedish version of this course syllabus.

### **Cycle**

Second cycle

### **Progressive specialization**

A1F - second cycle, has second-cycle course/s as entry requirements

### **Main field of study**

Automation, Production Technology