#### **COURSE SYLLABUS**



Course code: SER700

#### Service Robotics, 5 HE credits

Servicerobotik, 5 hp

Established: 2018-12-21

Established by: Department of Engineering Science

Applies from: H19

# 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.

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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