

COURSE DETAIL

APPLIED MECHATRONICS

Country

Sweden

Host Institution

Lund University

Program(s)

Lund University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mechanical Engineering Electrical Engineering

UCEAP Course Number

157

UCEAP Course Suffix**UCEAP Official Title**

APPLIED MECHATRONICS

UCEAP Transcript Title

APPLIED MECHATRONICS

UCEAP Quarter Units

8.00

UCEAP Semester Units

5.30

Course Description

The development of the products of today and tomorrow is more and more often demanding an optimized combination of electromechanical solutions and embedded systems (integrated electronics and software). The aim of the course is that the student should use the knowledge and skills achieved from earlier courses and independently seek and find solutions for complex mechatronic assignments. The course has two parts. The first one is the development of a concept with technical specifications that solves a real problem in industry (the concept is implemented into a working industrial prototype in another optional course). The “concept” project group is composed by at least one E-student and at least one M-student to form a mechatronic team with various competences. The other part of the course is an individual assignment to construct a complete mechatronic system for the PC control of a DC motor, including computer communication, electronic design also on the circuit board, microprocessor programming, sensor technology, and automatic control strategies. The system is built in a lab open 24/7, where cooperation is encouraged but still the final examination is individual.

Language(s) of Instruction

English

Host Institution Course Number

EIEN45

Host Institution Course Title

APPLIED MECHATRONICS

Host Institution Campus

Engineering

Host Institution Faculty

Host Institution Degree

Host Institution Department

Engineering- Industrial Electrical Engineering and Automation

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