



HÖGSKOLAN I GÄVLE

Embedded Systems 7.5 cr

Inbyggda system 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

10/9/14

VT2016

Level	G1F
Education level	First cycle
Course identifier	EEG304
Credits	7.5 cr
Main field of study	Electronics
Subject group	Electronics
Disciplinary domain	Technology 100.0 %

Learning outcomes	After completion of the course, the student shall be able to 1. account for the working methods and functions of a microcontroller 2. carry out programming of microcontroller in an embedded measurement and control system 3. connect peripheral units and sensors to a microcontroller 4. interpret the information in a data sheet for a microcontroller.
Course content	Orientation in microcontrollers, basic C programming, analogue adaptation to microcontroller, serial communication protocols and peripheral units.
Teaching	The teaching is carried out as teaching sessions, exercises and laboratory sessions. The course contains a project where the students carry out a design and programming assignment, individually or in groups.
Prerequisites	Programming, 7.5 cr, Digital Control Technology 7,5 cr alternatively Computer Systems 7.5 cr or equivalent
Examination	Written examination, laboratory exercises and project work
Grade	A, B, C, D, E, Fx, F

Other regulations Grading criteria are provided by the course coordinator or examiner at the beginning of the course.

Sustainable environment Content with sustainable development is not relevant to this course.

Module

0010	Written examination	4 cr	Grade: AF
0020	Laboratory Sessions and Compulsary Parts	2 cr	Grade: UG
0030	Project Work	1.5 cr	Grade: AF