



HÖGSKOLAN I GÄVLE

Automation Systems 7.5 cr

Automationssystem 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at	Valid from
3/10/15	HT2015
3/11/16	HT2016

Level	G2F
Education level	First cycle
Course identifier	EEG505
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 analogue interfaces in measurement systems
2. describe and use the theories and methods included in the course
3. design and program an automation system
4. use standard literature and research results concerning measurement systems.

Course content Automatic test systems
Analogue interfaces
Configure a DCS (Distributed Control System)
Safety systems
Safety PLC (Programable Logic Control)
PL (Performance Level) and SIL (Safety Integrity Level)

Teaching The teaching is carried out as lectures, computer exercises and laboratory sessions. The course includes a major project.

Prerequisites Electronics and Measurement Systems 7.5 cr, Control Theory 7.5 cr, Introduction to Automataion 7.5 cr, and Introduction to Data Communication 7.5 cr or equivalent.

Examination	Oral Examination, Laboratory Sessions, Oral and Written Report of Project Assignment
Grade	A, B, C, D, E, Fx, F
Other regulations	Grading criteria are provided by the examiner or course coordinator in connection with the course introduction.
Sustainable environment	A minor part of the course content deals with sustainable development.

Module			
	0040 Oral examination	1.5 cr	Grade: AF
	0050 Laboratory Sessions	1.5 cr	Grade: UG
	0060 Project Assignment	4.5 cr	Grade: AF