



## Course syllabus

Faculty of Technology

Department of Physics and Electrical Engineering

OTG003 El- och datateknik bas, 7,5 högskolepoäng

Electronics and Computer Technology, Preparatory Course, 7.5 credits

### Subject Group

Other Subjects within Technology

### Level of classification

Pre-university level

### Progression

G1N

### Date of Ratification

Approved 2014-06-24

Revised 2016-11-02 by Faculty of Technology.

The course syllabus is valid from spring semester 2017

### Prerequisites

0FY100 Physics, Preparatory course 1 or equivalent.

## Objectives

After completion of the course the student is expected to:

- have knowledge on basic circuit theory, electronics, digital technology and computer technology
- be able to perform calculations on simple electrical circuits
- be able to perform measurements on simple circuits
- be able to use the computer to control a simple process

## Content

The course includes the following topics:

- fundamental circuit theory and electronics
- introduction to digital and computer technology
- analog and digital IC circuits
- laboratories in electronics and computer technology
- applied programming exercise

## Type of Instruction

The teaching consists of lectures, tutorials and laboratories. Some parts require mandatory attendance. Information about compulsory elements etc. will be announced.

## Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction

(VG).

The assessment of student performance usually takes place in special examination periods and is generally written. The assessment is also based on submitted reports of laboratory experiments.

The course 0TG003 is a preparatory course that can not be credited as part of a college education.

### **Course Evaluation**

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board as well as to the students and filed.

### **Required Reading and Additional Study Material**

#### **Required reading**

Jonas Forsberg, Börja med Elektronik och Arduino, Studentlitteratur, latest edition. 164 (268) pages

#### **Additional literature**

Jonas Forsberg, Börja med Elektronik och Arduino - Arbetsbok, Studentlitteratur, latest edition. 122 pages