



Course syllabus

Faculty of Technology

Department of Built Environment and Energy Technology

1BT020 Programmering i Matlab, 7,5 högskolepoäng

Programming in Matlab, 7.5 credits

Main field of study

Bioenergy Technology

Subject Group

Energy Technology

Level of classification

First Level

Progression

G1N

Date of Ratification

Approved by Faculty of Technology 2016-11-28

The course syllabus is valid from autumn semester 2017

Prerequisites

General entry requirements and Chemistry 1, Mathematics 3c, Physics 2 or Chemistry A, Mathematics D, Physics B (Field-specific entry requirements 8/A8).

Objectives

After completing the course the students are expected to have acquired knowledge to:

- Declare variables and assign values.
- Programming algorithms such as reiterations and selections.
- Write code for reading and writing in a file.
- Write functions and use existing Matlab functions.
- Applied programming to solve technical problems.

Content

The course comprises the following elements:

- Variables, as arrays and lists
- Selection and reiteration algorithms
- Graphics and Visualization
- File management
- Subprograms such as functions
- Problem solving

Type of Instruction

The teaching consists of lectures, exercises and project work.

Examination

EXAMINATION

The course is assessed with the grades U, 3, 4 or 5.

The assessment of student performances usually takes place during special examination periods and may take the form of written exams and project work. In order to pass, the expected learning outcomes should be achieved.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: 1MT029 och 1MT032, 7,5 credits

Required Reading and Additional Study Material

Required reading

Per Jönsson, *MATLABberäkningar inom teknik och naturvetenskap*, Studentlitteratur AB, Lund, latest edition, approx. 440 pages.