IMT1031 Fundamental Programming - Study plans 2016-2017

Course code:
IMT1031

Course name:
Fundamental Programming

Course level:
Bachelor (syklus 1)

ECTS Credits:
10

Duration:
Autumn

Language of instruction:
Norwegian

Expected learning outcomes:
Knowledge:

- Read and explain fundamental C++ syntax.
- Analyze the problem for simple programming tasks.
- Find and write the program code for solving such a problem.
- Obtain a suitable/appropriate data structures for a computer program, primarily containing arrays/tables.

Skills:

- Using a program develoment tool containing a C++ compiler.
- Understand and use fundamental C++ syntax.
- Writing program code that is implementation/realization of a self-found or already known algorithm.
- Getting to known and change/modify/expand already existing program code.
- Create and manage simple data structures consisting of arrays/tables.

General Competence:

- Work systematically, structured and targeted to solve a (programming) problem.
- Practical own efforts ("hands on ") is the way to new knowledge and skill.

Topic(s):
Construction of programs:
- Step by step
- Algorithms
- Pseudo code
Introduction to language elements as:
- Program structure and expressions
- Types of data, variables, strings and constants
- Operators
- Flow of control (decisions and loops)
- Structures
- Functions and parameters
- Arrays
- Classes and objects
Use of library functions:
- Streams (files and I/O)
- String handling

Teaching Methods:
Lectures
Mandatory assignments
Exercises

Form(s) of Assessment:
Written exam, 4 hours

Grading Scale:
Alphabetical Scale, A(best) – F (fail)

External/internal examiner:
Graded by course instructor and examiner.

Re-sit examination:
Ordinary re-sit examination

Tillatte hjelpemidler:
B: Alle trykte og håndskrevne hjelpemidler tillatt. Bestemt, enkel kalkulator tillatt.

Examination support:
All printed matters and hand written notes

Coursework Requirements:
4 of 5 mandatory assignments must be approved by student assistant. No. 1 must be one of them. Clearly inadequate work, not independently own work or deadline that is not complied is considered as undelivered.

Academic responsibility:
Faculty of Computer Science and Media Technology

Course responsibility:
Universitetslektor Frode Haug

Teaching Materials:
Lafore, Robert. (2002). Object-Oriented Programming in C++. Indianapolis, IN: SAMS.
Faglærer. Kompendium. Gjøvik: HiG.

Publish:
Yes