

IMT1082 Object-Oriented Programming - 2012-2013

Course code:

IMT1082

Course name:

Object-Oriented Programming

Course level:

Bachelor (syklus 1)

ECTS Credits:

10

Duration:

Vår

Language of instruction:

Norwegian

On the basis of:

IMT1031 - Fundamental Programming

Expected learning outcomes:

Knowledge:

- Read and explain more advanced C++ syntax.
- Explain and use object-oriented approach / thinking.
- Find an suitable/appropriate data structure for moderate big computer program.
- Explain the use of a small programming library (toolbox).
- Develop an application (as project work) consisting of a number of different files.

Skills:

- Understand and use more advanced C++ syntax.
- Solve programming tasks with object-orientation approach/thinking.
- Using and mastering a programming library.
- Choose, create and manage more sophisticated data structures, primarily consisting of lists and arrays/tables.

General Competence:

- Cooperate with other people in a project.
- Analyze, plan and implement a larger work (project).
- Dealing with and adhere to deadlines.

Topic(s):

Principles for object-orientation

Introduction to language elements as:

- Classes and objects (repetition)
- Overloading
- Inheritance
- Pointers
- Dynamic allocation
- Lists
- Virtual functions and late binding

Bigger programs (application) consisting of multi-files.

Teaching Methods:

Lectures

Mandatory assignments

Exercises

Project work

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:**Examination support:**

All printed matters and hand written notes

Coursework Requirements:

Exercises (must have been approved by student assistant).

Project(s) (must have been approved by student assistant).

All exercises before the project work must be submitted before the student can join a group and start the project work. It requires active participation in the project to get it approved. Group participants must sign a paper dealing that all students have been active/participating, and each one can be extracted for an oral exam to get the project approved.

Academic responsibility:

Faculty of Computer Science and Media Technology

Course responsibility:

Høgskolelektor Frode Haug

Teaching Materials:

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

Publish:

Yes