## Datalogi - Fagmodulkursus 1 - Essential Computing I

## Om kurset

uddannelse Fagmodul i Datalogi

sted 43.2-29

Kursustype fagmodulskursus

Undervisningssprog English

Tilmelding

Register through STADS Self-Service

Questions regarding registration please contact course secretary Anja Kastrup Christiansen

(anjakc@ruc.dk)

Registration will take place during the period May 1, 2015 - May 15, 2015

 Kursus starter
 16-09-2015

 Kursus slutter
 18-11-2015

Undervisningstidspunkt

Wednesdays 8.30-12.45

forudsætninger

English at a level equivalent to the Danish gymnasium level B

Kursusrækkefølge

Examples of how to structure your studies at Computer Science:

http://www.ruc.dk/uddannelse/fag/datalogi/om-faget/fagets-opbygning-og-indhold/kurser-paa-fagmodulet/

formål

§ 1. The aim of the Bachelor Subject module in Computer Science is to qualify the student in interdisciplinary development work, particularly in preparation for professional functions in software development, i.e. especially construction and analysis of software. The aim is to give general and valid qualifications at a scientific level. General terms and general understanding have a high priority and the student's ability to work in the field of computer science from a problem-solving and critical perspective is emphasised

Indhold

The course introduces fundamental concepts and tools related to programming. The course is based on the Java programming language.

More specifically the course covers the following:

- The idea of an algorithm, problem solving, computational thinking, limits of what can be computed
- Essential programming control structures, basic data types, arrays, structured data types, procedures and functions
- · Calculations, using libraries and APIs, files, handling graphics and sound
- Classes, objects and object oriented programming

Structure of typical programs with graphical user interface

Undervisningsform

The teaching is based on lectures and exercises in programming

bedømmelseskriterier

## The goal of the course is that the student acquires:

Knowledge:

• Knowledge about basic terms and tools related to programming

Skills:

• Skills in basic programming and the use of tools for preparation and execution of programmes.

Competencies:

• Competencies in analysing a problem and producing, implementing and testing an algorithmic solution

Eksamensform

The exam will be a 15 minute individual oral exam. The exam will mainly be about the assignments

(especially the mini project) but questions can be related to the whole course curriculum.

The mark will be based on overall assessment on the assignments and the oral exam.

To attend the exam the student must have 50 % of the hand in assignments approved including the mini

project.

The assignments can be made in groups – each group with a maximum of 3 students

Reeksamensform

As the ordinary exam

Eksamenstid spunkt

January 4 (monday) and January 5 (tuesday) 2016

You will be informed of details such as exact time and location later

undervisningsmaterialer

Head First Java ISBN-13: 978-0596009205

Aktivitetsansvarlig

Ebbe Vang ( ebbevang@ruc.dk )

Kursussekretær

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Underviser

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STADS stamdata

OS fagmodulskursus

belastning: 5 ECTS

aktivitetskode: U24755

prøveform : mundtlig

bedømmelse : 7-trinsskala

censur : Intern censur