

# Datalogi - Fagmodulkursus 1 - Essential Computing I

## Om kurset

uddannelse	Fagmodul i Datalogi
Kurstype	fagmodulkursus
Undervisningssprog	English
	Register through STADS Self-Service
Tilmelding	Registration will take place during the period May 1-15, 2016  Questions regarding registration please contact course secretary Anja Kastrup Christiansen (anjakc@ruc.dk)
Kursus starter	14-09-2016
Kursus slutter	16-11-2016
Undervisningstidspunkt	Wednesdays 8.15-12.00
Undervisningssted	6.2-plenum
forudsætninger	English at a level equivalent to the Danish gymnasium level B
Kursusrækkefølge	Examples of how to structure your studies at Computer Science: <a href="http://www.ruc.dk/uddannelse/fag/datalogi/om-faget/fagets-opbygning-og-indhold/kurser-paa-fagmodulet/">http://www.ruc.dk/uddannelse/fag/datalogi/om-faget/fagets-opbygning-og-indhold/kurser-paa-fagmodulet/</a>
formål	<p>§ 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</p> <p>The course introduces fundamental concepts and tools related to programming. The course is based on the Java programming language.</p>
Indhold	<p>More specifically the course covers the following:</p> <ul style="list-style-type: none"><li>• The idea of an algorithm, problem solving, computational thinking, limits of what can be computed</li></ul>

- 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

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

*Knowledge:*

- Knowledge about basic terms and tools related to programming

*Skills:*

bedømmelseskriterier

- 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

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.

Eksamensform

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

Same as the ordinary exam

**Written assignment:**

Monday at 12.00, January 30, 2017

Reksamensform

**Oral exam:**

February 20, 2017

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

**Written assignment:**

Friday at 12.00, November 18, 2016

Eksamenstidspunkt      **Oral exam:**

January 2, 3 or January 4, 2017

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

kommentar              The course description is preliminary

Aktivitetsansvarlig      Mads Rosendahl ( madsr@ruc.dk )  
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Anja Kastrup Christiansen ( anjakc@ruc.dk )

Underviser              Ebbe Vang ( ebbevang@ruc.dk )

STADS stamdata	fagmodulskursus		
	belastning : 5 ECTS	aktivitetskode : U24755	
	prøveform : mundtlig	bedømmelse : 7-trinsskala	censur : Intern censur