Subject Module Course 1: Essential Computing

About the course

subject	Fagmodul i Datalogi
Activity type	subject module course
Teaching language	English
Registration	Sign up for study activities at STADS Online Student Service within the announced registration period, as you can see on the Study administration homepage. When signing up for study activities, please be aware of potential conflicts between study activities or exam dates. The planning of activities at Roskilde University is based on the recommended study programs which do not overlap. However, if you choose optional courses and/or study plans that goes beyond the recommended study programs, an overlap of lectures or exam dates may occur depending on which courses you choose.
Detailed description of content	The teaching will be done in the Java framework. It will consist of a mix between exercises and lectures to get hands-on experience with the key concepts of programming both when it comes to syntax and general computational thinking.
Expected work effort (ECTS-declaration)	The course will have a total workload of 135 hours with 40 hours of lectures and exercises, 70 hours of preparation over an 11 week course period and 25 hours for the exam and preparation before the course
Course material and Reading list	Course material will be made available via the course Moodle page
Evaluation- and feedback forms	There will be feedback on exercises that are set during the course. An evaluation will take place at the end of the course
Administration of exams	IMT Studieadministration (imt-studieadministration@ruc.dk)
Responsible for the activity	Jens Classen (classen@ruc.dk)
ECTS	5
Learning outcomes and assessment criteria	• Knowledge and understanding: • Knowledge and understanding of fundamental concepts and tools associated with programming. • Skills: • Proficiency in basic programming and use of tools for preparing and running applications. • Competences: • Competences to analyse a research question and make an algorithmic solution and implement and test it.
Overall content	Fundamental concepts and tools associated with programming. More specifically: • The idea of an algorithm, problem solving, computational thinking, limits of what can be computed. • Essential programming control constructs, basic data types, arrays, structured data types, procedures and functions.
Prerequisites for participation in the exam	It is a prerequisite for participating in the exam that at least 50% of the programming tasks that have been assigned during the course have been approved by the lecturer. Re-examination, if the prerequisites for taking the examination are not met: Re-submission and approval of the programming tasks before the examination.

Teaching and working methods	Lectures and group exercises. During the course, a mini-project based on a research question that has been assigned will be prepared.
Type of activity	Mandatory course
Form of examination (p1)	Individual oral exam with a starting point in a mini project (based on a research question) possibly done by a group. The exam is conducted as a dialogue There may be posed questions in any part of the curriculum. Permitted group size: 2-3 students. The character limits of the written product are: For 1 student: maximum 48,000 characters, including spaces. For 2 students: maximum 48,000 characters, including spaces. For 3 students: maximum 48,000 characters, including spaces. The character limits include the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices. Time allowed for exam including time used for assessment: 15 minutes. The assessment is an overall assessment of the written product(s) and the subsequent oral examination.. The assessment is individual and based on the student's individual performance. Permitted support and preparation materials for the oral exam: All. Assessment: 7-point grading scale. Moderation: Internal co-assessor.
Form of Re-examination (p1)	Samme som ordinær eksamen
Exam code(s)	Exam code(s) : U27057

Course days:

Hold: 1

SMC1 Essential Computing (DAT)

time	14-09-2022 08:15 til 14-09-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	40.2-25 - teorirum (foldedør ud til kantineområdet) (50)
Teacher	Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time	21-09-2022 08:15 til 21-09-2022 12:00
location	27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 19-10-2022 08:15 til
19-10-2022 12:00

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 26-10-2022 08:15 til
26-10-2022 12:00

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 02-11-2022 08:15 til
02-11-2022 12:00

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 09-11-2022 08:15 til
09-11-2022 12:00

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 16-11-2022 08:15 til
16-11-2022 12:00

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time 01-12-2022 08:15 til
01-12-2022 12:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 27.2-054 - lokale 3 (40)

Teacher Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time	05-12-2022 08:15 til 05-12-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Teacher	Jens Classen (classen@ruc.dk)

SMC1 Essential Computing (DAT)

time	07-12-2022 08:15 til 07-12-2022 12:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Teacher	Jens Classen (classen@ruc.dk)

SMC1 Essential Computing - Hand-in (DAT)

time	14-12-2022 10:00 til 14-12-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

SMC1 Essential Computing - Deadline Prerequisites (DAT)

time	20-12-2022 10:00 til 20-12-2022 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

SMC1 Essential Computing - Oral examination (DAT)

time	11-01-2023 08:15 til 13-01-2023 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	11.1-047 - studiesal (40)

SMC1 Essential Computing - Reexam Prerequisites (DAT)

time	25-01-2023 10:00 til 25-01-2023 10:00
forberedelsesnorm	ikke valgt

forberedelsesnorm D-VIP	ikke valgt

SMC1 Essential Computing - Reexamination - Hand-in (DAT)

time	31-01-2023 10:00 til 31-01-2023 10:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

SMC1 Essential Computing - Oral reexamination (DAT)

time	06-02-2023 08:15 til 06-02-2023 18:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	03.1-nw75 - mødelokale (8)