Projektportfolio (Project Portfolio - Computer Science)

About the course

Subject	Datalogi
Activitytype	master project
Teaching language	English
Registration	Tilmelding sker via STADS-Selvbetjening indenfor annonceret tilmeldingsperiode, som du kan se på Studieadministrationens hjemmeside Når du tilmelder dig kurset, skal du være opmærksom på, om der er sammenfald i tidspunktet for kursusafholdelse og eksamen med andre kurser, du har valgt. Uddannelsesplanlægningen tager udgangspunkt i, at det er muligt at gennemføre et anbefalet studieforløb uden overlap. Men omkring valgfrie elementer og studieplaner som går ud over de anbefalede studieforløb, kan der forekomme overlap, alt efter hvilke kurser du vælger. Registration through STADS-Selvbetjeningwithin the announced registration period, as you can see on the Studyadministration homepage. When registering for courses, please be aware of the potential conflicts between courses or exam dates on courses. The planning of course 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	Information about semester start and group formation: http://study.ruc.dk/class/view/17998
Project process	Detailed description of content The project portfolio will be divided into three smaller subprojects with problems and challenges related to issues covered in three corresponding sections of the RAWDATA course. The project portfolio is defined by a set of specific requirements with the intention to develop competence and skills in specific theoretical and practical areas. The goal is that the student, based on knowledge of relevant theory, will obtain skills to the development of responsive applications in a distributed environment, and the approach is, during the project portfolio, to develop a modern complex distributed web application. The contents of the three sections are outlined below. Section 1: Databases In this section we will design the data used in the project. We will use a large data set in order to be able to create an environment with real life problems with respect to normalization, optimization and complexity. This section of the project will form the data model of the application to be developed in the project. In addition we will deal with functionality to search and manipulate data to be stored in and provided by the database system. Finally we will consider specific problems that concern textual data, which are the main target for the intended application. Section 2: Data communication and network with focus on web services This section is about the backend of the application, the web service interface to the data. By use of solid design principles, the backend is created within the .net framework and with c# as programming language. We will focus on how to create intuitive and maintainable restful interfaces to the underlying data model with good support for the frontend developers. Section 3: Development of responsive applications The main goal in this section is to create the frontend of the application by use of modern web development strategies. The foundation is html5, css3 and javascript, and the aim is responsive single-page applications that uses popular tools and frameworks currently used to form the mobile/web applications we use every day.
Expected work effort (ects-declaration)	The workload of the Project portfolio is 15 ECTS, ie. work is expected to be 412.5 hours per student.
Course material and reading list	This corresponds to the curriculum for the RAWDATA course plus additional literature selected by the student groups in collaboration with the supervisor.
Head of studies/ academic coordinator	Mads Rosendahl (madsr@ruc.dk)

Administration of exams	IMT Studieadministration (imt-studieadministration@ruc.dk)
The responsible course lecturer	Troels Andreasen (troels@ruc.dk)
Type of examination	Oral group examination for the participants in the project work. The examination is based on the students' project portfolio, which contains a main report with a reflection paper and, if relevant, selected works and selected work products as appendices. The examination includes individual presentations on a subject of the students' own choosing that is relevant to the issues highlighted in the project portfolio. Each individual presentation, including questions, lasts up to five minutes. The individual presentations are followed by a dialogue based on the project between the students and assessors. The assessors can ask questions related to the subject area of the project portfolio during the exam. An individual assessment will be made on the basis of the project portfolio and the individual student's oral presentation. The groups can consist of 2-6 students. The project portfolio's size, depending on the number of students: - 2 students have between 4,800-48,000 characters, including spaces. • 3 students have between 4,800-48,000 characters, including spaces. • 4 students have between 4,800-48,000 characters, including spaces. • 5 students have between 4,800-48,000 characters, including spaces. • 6 students have between 4,800-48,000 characters, including spaces. The size specifications include the cover, table of contents, bibliography, figures and other illustrations, but exclude any appendices. Time allowed for examination including time used for assessment: For 2 examinees, 60 minutes For 3 examinees, 75 minutes For 4 examinees, 90 minutes For 5 examinees, 105 minutes For 6 examinees, 120 minutes The assessment includes spelling and clarity of expression in the project portfolio. Permitted support and preparation materials during the examination: All Assessment: 7-point grading scale. Moderation: Internal co-assessor.
ECTS	15
Learning outcomes and assessment criteria	In-depth knowledge and understanding of the theoretical, methodological and practical opportunities and problems that are associated with software development, using specific models from the core areas or elective subject. • Skills in describing and reflecting upon independently completed work wherein a complex research question is processed using relevant solution models. • Skills in defining and justifying a selected solution model and independently planning and completing the solution using relevant high-level scientific literature • Skills in Mastering concepts, theories and methods based on literature and being able to use these in an insightful manner to solve concrete computer science problems. Competences in mastering computer science development situations that are complex and require new solution models.
Overall content	The students will develop their own practices portfolio in groups. The subjects chosen for this must be within the core areas. The core areas of Computer Science are: machine architecture and operating systems, distributed systems, databases and human to machine interactions.
Prerequisites for participation	Currently no data from curriculum.

Prerequisites for participation in the exam	Currently no data from curriculum.
Teaching and working methods	A project portfolio is a collection of works (texts, program code, data models, architecture) at various levels of abstraction that are associated with practical workshop-oriented or exercise work.
Type of course	Project portfolio
Exam code(s)	Exam code(s) : U40124

Course days:

Hold: 1

Group formation

Time	02-09-2019 08:15 til 06-09-2019 10:15
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt
Content	Link to group formation

Projektportfolio (computer science) - Project hand-in

Time	17-12-2019 12:00 til 17-12-2019 12:00
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt

Projektportfolio (computer science) - Oral Exam

Time	21-01-2020 08:15 til 22-01-2020 17:00
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt

Projektportfolio (computer science) - Reexam

Time	24-02-2020 08:15 til 28-02-2020 17:00
Forberedelsesnorm	Ikke valgt
Forberedelsesnorm d-vip	Ikke valgt