BK4/BK8 - Logic and discrete mathematics

Om kurset

ændret 1.3.16

http://akira.ruc.dk/~torben/Spring15DiscreteMath.html

uddannelse	Den naturvidenskabelige bacheloruddannelse / Den Internationale Naturvidenskabelige Bacheloruddannelse
Hjemmeside	www.ruc.dk/om-universitetet/organisation/regelsamling/uddannelse/studieordninger-knyttet-til-faellesreglerne-fra-2012/
Kursustype	bachelor
Undervisningssprog	English
Tilmelding	Through STADS selfservice from 28. October to 16th November : Link to STADS selfservice Questions regarding registration can be directed to Mona Vølcker-Hansen, monavh@ruc.dk, phone 4674-2393
Kursus starter	04-03-2016
Kursus slutter	29-04-2016
Undervisningstidspunkt	Blok C Tuesday 13.15-17.00 / Friday 8.30-10.30
Undervisningssted	Lokale IV, 27.2
forudsætninger	English at a level equivalent to the Danish gymnasium level B. No further prerequisites.
formål	The goal of the course is that the student acquires: **Knowledge:** ● Preliminary knowledge of logic and discrete mathematics and the understanding of what is going on in a given situation when it is applied. **Skills:** ● Oral and written presentation of logical and algorithmic reasoning **Kompetencies:** ● The use of logic and discrete mathematics as a means for modeling and as a tool for specification and communication in relevant scientific (not least computational) connections. ***CURRICULUM FOR THE BACHELOR STUDY PROGRAMME IN NATURAL SCIENCES*** *§ 19. Courses BK 4 to BK 8: Courses in the natural sciences: The objectives of courses BK 4 to BK 8 are to give students a broad introduction to and basic knowledge of the natural sciences with the aim of enabling them to make a qualified choice of subject modules, and to complete these.*
Indhold	The course will address propositional- and predicate logic (informal as well as formal), sets and functions, algorithms, mathematical induction, formal languages.
Undervisningsform	Survey lectures, group and individual work both with theory building problems and traditional exercises, and regular assignments (home work).
Eksamensform	Individual oral exam with a duration of 15 minutes based on two or three individual mini projects, completed in groups, which must be handed in during the semester. The mini projects are based on a handed out problem formulation. The grading is a total of the mini projects and the oral exam. A precondition for taking the exam is that the student has handed in and received approval for a number of minor assignments set during the course.
Reeksamensform	Extension of mini project and individual oral exam with a duration of 15 minutes based on the extended mini project.
Eksamenstidspunkt	10 juni 2016

reeksamenstidspunkt	24 august 2016
Undervisningsevalueringsform	All courses include formative evaluation during the course based on dialogue between the students and the teacher(s). All courses are also evaluated through a questionnaire in SurveyXact and oral evaluation at the end of the course. The Study Board will handle all evaluations along with any comments from the course responsible teacher.
undervisningsmaterialer	Kenneth H. Rosen, Discrete Mathematics and Its Applications, International Version, 6th edition, Mc-Graw Hill. ISBN-13: 978-0071244749, ISBN-10: 0071244743
Maksimum antal deltagere	30
Aktivitetsansvarlig	Torben Braüner (torben@ruc.dk)
Kursussekretær	Charlotte Levin Pedersen (chle@ruc.dk) Tine Nyegaard Pedersen (tinenp@ruc.dk) Mona Vølcker-Hansen (monavh@ruc.dk) Louise Juhl Nielsen (ljuhl@ruc.dk)
Underviser	Torben Braüner (torben@ruc.dk)

STADS stamdata: bachelor

belastning : 5 ECTS | aktivitetskode : U24756

prøveform : Intern | bedømmelse : 7-trinsskala | censur : Intern censur