# BK4/BK8 - Logic and discrete mathematics

# Om kurset

http://webhotel4.ruc.dk/~torben/Spring16DiscreteMath.html

| | |
|---|---|
| uddannelse | Den naturvidenskabelige bacheloruddannelse / Den Internationale Naturvidenskabelige Bacheloruddannelse |
| Hjemmeside | www.ruc.dk/om-universitetet/organisation/regelsamling/uddannelse/ / http://www.ruc.dk/uddannelse/bachelor/optagelse-bachelor/adgangskrav/fag-med-yderligere-adgangskrav/ |
| Kursustype | Basiskursus |
| Undervisningssprog | English |
| Tilmelding | Through STADS selfservice from 1st November to 15th November : Link to STADS selfservice<br>Questions regarding registration can be directed to inm-bach@ruc.dk |
| Kursus starter | 14-03-2017 |
| Kursus slutter | 04-05-2017 |
| Undervisningstidspunkt | Blok C: Tuesday 13.15-17.00 / Thursday 13.15-15.00 |
| Undervisningssted | Plenum 14.1 |
| 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:<br>**Knowledge:**<br>● 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.<br><br>***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.<br><br>The grading is a total of the mini projects and the oral exam.<br><br>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 | 13 June 2017 |

| | |
|---|---|
| reeksamenstidspunkt | 25 August 2017<br><br>You will not automatically be registered for a reexamination. If you wish to attend reexamination you have to register through following form: https://intra.ruc.dk/index.php?id=43518<br><br>Please note that you have to register for reexamination for the spring courses held in August, before the 7th of July. |
| 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. |
| Maksimum antal deltagere | 30 |
| Aktivitetsansvarlig | Torben Braüner ( torben@ruc.dk ) |
| Moodlesekretær | Tine Nyegaard Pedersen ( tinenp@ruc.dk )<br>Mona Vølcker-Hansen ( monavh@ruc.dk )<br>Louise Juhl Nielsen ( ljuhl@ruc.dk )<br>Sofie Falkesgaard ( sfalke@ruc.dk ) |
| Kursussekretær | Natbach Studieadministration ( natbach-studieadministration@ruc.dk ) |
| Underviser | Torben Braüner ( torben@ruc.dk ) |

STADS stamdata bachelor

| | | |
|---|---|---|
| belastning : 5 ECTS | aktivitetskode : U24756 | |
| prøveform : Intern | bedømmelse : 7-trinsskala | censur : Intern censur |