

Basisc course 4-8; Logic and discrete mathematics BLOK C

About the course

subject	Den Naturvidenskabelige Bacheloruddannelse / Den internationale naturvidenskabelige bacheloruddannelse
Activity type	Basic course
Teaching language	English
Registration	Please register via STADS-self-service within the annonced registration period, for more information see: https://intra.ruc.dk/en/students/student-hub/student-hub/ruc-uddannelsesjura-og-studieadministration/registration-periods/
Foreign language reading proficiency	English at a level equivalent to the Danish gymnasium level B.
Objectives description (assessment criteria)	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.
Overall content	The course will address propositional- and predicate logic (informal as well as formal), sets and functions, algorithms, mathematical induction, formal languages.
Detailed description of content	Please contact Torben Braüner (torben@ruc.dk) for more information. Information about the previous edition of the course can be found here: http://www.ruc.dk/~torben/Spring17DiscreteMath.html
Teaching and working methods	Survey lectures, group and individual work both with theory building problems and traditional exercises, and regular assignments (home work).
Course material and Reading list	Kenneth H. Rosen, Discrete Mathematics and Its Applications, International Version, 6th edition, Mc-Graw Hill. ISBN-13: 978-0071244749, ISBN-10: 0071244743 The book can be bought a number of places, for example at Amazon: https://www.amazon.com/Discrete-Mathematics-Applications-International-Version/dp/0071244743/ref=sr_1_1?s=books&ie=UTF8&qid=1358745865&sr=1-1&keywords=9780071244749 Beware: The book comes in a number of different editions, it's important that you get hold of the correct version specified above - please check the ISBN number.
Prerequisite for taking the exam	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. 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.
Form of examination	Individual oral exam with a duration of 15 minutes based on two or three individual mini projects
Form of re-examination	Individual oral exam with a duration of 15 minutes based on two or three individual mini projects
Examination type	Individual examination

Assessment	7-point grading scale	
Moderation	Internal (i.e. course lecturer and an internal examiner assess)	
Evaluation- and feedback forms	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.	
Responsible for the activity	Morten Blomhøj (blomhoej@ruc.dk) Torben Braüner (torben@ruc.dk)	
teacher	Torben Braüner (torben@ruc.dk)	
Administration of exams	Natbach Studieadministration (natbach-studieadministration@ruc.dk)	
STADS stamdata	Basic course workload : 5 ECTS exam form : Internal	activitycode : U24756 grading : 7-point grading scale censorship : Internal censor

Course days:

Hold: 1

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 1

time	13-03-2018 13:15 til 13-03-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 2

time	15-03-2018 13:15 til 15-03-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 3

time	20-03-2018 13:15 til 20-03-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle

Reading list	Please see Moodle
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NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 4

time	22-03-2018 13:15 til 22-03-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 5

time	27-03-2018 13:15 til 27-03-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 6

time	03-04-2018 13:15 til 03-04-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 7

time	05-04-2018 13:15 til 05-04-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 8

time	10-04-2018 13:15 til 10-04-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle

Reading list	Please see Moodle
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NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 9

time	12-04-2018 13:15 til 12-04-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 10

time	17-04-2018 13:15 til 17-04-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 11

time	19-04-2018 13:15 til 19-04-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 12

time	24-04-2018 13:15 til 24-04-2018 17:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 13

time	26-04-2018 13:15 til 26-04-2018 15:00
location	28b.0-01 - store teorirum (30)
Content	Please see Moodle

Reading list Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 14

time 01-05-2018 13:15 til
 01-05-2018 17:00

location 28b.0-01 - store teorirum (30)

Content Please see Moodle

Reading list Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 15

time 03-05-2018 13:15 til
 03-05-2018 15:00

location 28b.0-01 - store teorirum (30)

Content Please see Moodle

Reading list Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Examination

time 11-06-2018 08:15 til
 12-06-2018 17:00

location 27.2-054 - lokale 3 (40)

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Re-examination

time 16-08-2018 13:00 til
 16-08-2018 17:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt

location 27.2-054 - lokale 3 (40)

STADS	Basic course		
stamdata	workload : 5 ECTS	activitycode : U24756	
	exam form : Internal	grading : 7-point grading scale	censorship : Internal censor