Basic 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	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 is happing 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.
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://webhotel4.ruc.dk/~torben/Spring18DiscreteMath.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.

	Further material will be made available at Moodle.
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 activitycode : U24756 / U26571 exam form : Internal / Intern (ut) grading : 7-point grading scale censorship : ingen censur / Internal censor

Course days:

Hold: 1

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

time	12-03-2019 13:15 til 12-03-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	14-03-2019 13:15 til 14-03-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	19-03-2019 13:15 til 19-03-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	21-03-2019 13:15 til 21-03-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	26-03-2019 13:15 til 26-03-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	28-03-2019 13:15 til 28-03-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	02-04-2019 13:15 til 02-04-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	04-04-2019 13:15 til 04-04-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

NATBACH: Basisc course 4-8; Logic and discrete mathematics - Lecture 9

time	09-04-2019 13:15 til 09-04-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	11-04-2019 13:15 til 11-04-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	16-04-2019 13:15 til 16-04-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	23-04-2019 13:15 til 23-04-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	25-04-2019 13:15 til 25-04-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	30-04-2019 13:15 til 30-04-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt

location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	02-05-2019 13:15 til 02-05-2019 15:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	27.2-054 - lokale 3 (40)
Content	Please see Moodle
Reading list	Please see Moodle

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

time	12-06-2019 13:15 til 12-06-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	28a.2-11 - mødelokale a2 (20)
Content	Individual oral exam with a duration of 15 minutes based on two or three individual mini projects

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

time	15-08-2019 13:00 til 15-08-2019 17:00
forberedelsesnorm	ikke valgt
forberedelsesnorm D-VIP	ikke valgt
location	09.1-023 - mødelokale (8)
Content	Individual oral exam with a duration of 15 minutes based on two or three individual mini projects

STADS stamdata	Basic course		
	workload : 5 ECTS	activitycode : U24756 / U26571	
	exam form : Internal / Intern (ut)	grading : 7-point grading scale	censorship : ingen censur / Internal censor