Mathematics for Computer Science

Subject area: Mathematics

University: TalTech
Level: MA1
Teaching mode: hybrid: some students participate online, other students attend real-life
Instructor(s):   Silvio Capobianco

Short description

The course "Mathematics for Computer Science" follows the lines of the course of the same name taught at Massachusetts Institute of Technology. It is aimed at Master students of Comuter Science, Information Technology, Business Informatics, and related disciplines. The course covers a series of topics from logic, set theory, discrete mathematics, and theory of computation, chosen from the first half of the textbook.

Full description

http://www.cs.ioc.ee/~/silvio/ITB8832/index.html

Learning outcomes

At the end of the course, the learner will be able to: apply standard techniques of computer science in various contexts; understand the relevance and field of use of the mathematical structures at the base of computer science; and use mathematics for problem solving and for design and testing of software.

General information

Contact hours per week: 4

Total workload: (32 hours lecture hours + 32 hours exercise sessions) * 2.5 for attendance and personal study = 160 hours (in student hours for the whole course)

ECTS credits: 6

Language: English

Course start date: 29 August 2022

Course end date: 18 December 2022

Add. info about start date:	Date is tentative.
Weekly teaching day/time:	To be announced.
Time zone:	CET +1 (Estonia, Israel)
Further information:	Information on the course may change according to various factors. The course web page will be kept up to date to reflect these changes.
Prerequisites:	Calculus and algebra, first-year BSc level. Basic combinatorics and probability are a useful addition.
Activities and methods:	Lectures, Group work, Self-study, Exercises, Weekly self-evaluation exercises
Presence on campus:	Presence on campus is not required.

Final examination

Form:	assignment
Date:	
Location/format:	online
Re-sit possibility:	yes
Transcript available:	end of semester
Add. info/requirements:	Three dates will be scheduled and one retake is allowed. Admission to final exam requires a minimum score from three midterm tests. Further information on the course web page.

Registration

To register for this course, follow the registration requirements of your **home university** as specified here: www.euroteq.eu/courses-registration.

Administration

Number of places:	6
Minimum participants:	No minimum
Internal course code:	ITB8832
Contact:	Email silvio.capobianco@taltech.ee

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