Syllabus for
CS-332 Theory of Computation

Introduction to basic concepts of the Theory of Computation. Model-independence is stressed. Concrete computational problems are considered only as illustrations of general principles. Topics include: models of computation, undecidability, time/space bounded computation, intractability, games, nondeterminism, inverting of functions, probabilistic computations, reductions of computational problems. Prereq: CAS-CS-330.


Important Deadlines: Add class: R 1/28; Drop: R 2/19; W-grade: M 3/30.


Disc. Sec. MCS-B31 M 10 - 11am, MCS-B33 M 11am - 12

TF: Andrei Lapets (lapets@bu.edu) office: MCS-183, hours: M 12-1, W 1-3; tel.: 358-1143

Instructor’s office hours: T 11-1:50.

Instructor: Leonid Levin (Lnd@bu.edu); Office: MCS-273, tel.: 353-3649; home: 332-9492.

Grading: Midterm and final exams, homework.

Remarks

• You must register in a discussion section and attend all its meetings as well as my lectures.

• You are encouraged to cooperate in learning the lecture material, reading the book, notes, etc. However, absolutely no collaboration is permitted in doing the homeworks which are to be graded! The Dean’s office will investigate any infractions of the CAS Academic Conduct Code which everyone must read thoroughly at: http://www.bu.edu/cas/academics/programs/conductcode.html

• If your handwriting is hard to read, please type your homeworks. Start each problem on a new page (except really short ones); staple the pages. Include your name, class and homework number on the first page. Submit only one version of any material. Extra versions are not graded.

• Make answers short and to the point. Be as precise and specific as possible. Make explicit your assumptions and goals (e.g., if showing partial work, clarify where exactly you could not complete the problem - otherwise the whole problem will be assumed wrong). Sketch a proof for every un-obvious statement. Examples do not prove a general statement.

• Homeworks submitted within a week carry a premium; unless otherwise announced, no homeworks are accepted after the start of next class since the premium date. All deadlines end at the beginning of class.

• No substitute exams are possible under ANY circumstances. If you think you will miss an exam, do not take the class. The exams are closed book. Only materials written with your own hand (not typed, printed, copied, or written by others) or your graded homeworks can be in the room.

I wish you enjoyment and success! -Leonid.