

Computer Science 30a
Room: To Be Announced

Introduction to the Theory of Computation
Block D. Mon., Wed., Thur. 11:00am–12m.

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Office Hours: by appointment.

URL for class: <http://www.cs.brandeis.edu/~cs30a/>

All information in this syllabus is also contained in the CS30a home page, which will be more up to date, and contains useful pointers to other information. You are required to check it at least once a week. All homework assignments will be posted on the cs30a home page, as will a list of TAs, and their office hours.

SYLLABUS

- Introduction – Classification
- Chomsky Hierarchy
- Regular Languages
- Context Free Languages
- Context Sensitive Languages
- General Languages
- Church-Turing Thesis
- Decidability
- Reducibility
- Time Complexity
- NP-Complete problems
- Space Complexity
- Intractibility

Text: The textbook is *Introduction to the Theory of Computation* 2nd edition by Michael Sipser, published by Thomson. ISBN 0-534-95097-3

Requirements:

Weekly homework	50%
Midterm (in class)	15%
Final May 7 1:30pm – 4:30pm	35%

Attendance is expected.

Homework Submissions

Due date: Unless otherwise specified, homework is due at 11:10 am (before class) on the Wednesday after it is assigned.

Late Policy: Homework is due on Wednesday before class. In most cases homework may be handed in as late as Monday before class, and suffer a 15% penalty. No homework will be accepted after that.

Academic Honesty: You are expected to conform to the rules set forth in *Rights and Responsibilities*, which you should have all received at the start of the school year.

Discussion of ideas and directions with other students is encouraged, but sharing proofs is not. Cheating will not be tolerated.

If you are a student with a documented disability on record at Brandeis University and wish to have a reasonable accommodation made for you in this class, please see me immediately.