

CS 516—Software Foundations via Formal Languages —Spring 2022

Instructor	Alley Stoughton
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Personal Website	alleystoughton.us
Course Website	alleystoughton.us/cs516
Class Sessions	TR 12:30–1:45pm MCS B33
Problem Solving Sessions	T 6:30–7:45pm MCS B33
Office Hours	W 2:30–4:30pm, MCS 122
Course Piazza	piazza.com/bu/spring2022/cs516

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- But our course will balance proof with *experimentation*, carried out using the Forlan toolset.
 - Implemented in the functional programming language Standard ML (SML).

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 - Basic set theory.
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- *Informal prerequisites:*
 - Enough familiarity with concepts of programming languages so learning basic functional programming won't be too much of a stretch.
 - Intermediate level of mathematical maturity, competency using proof techniques like mathematical induction, and proof by contradiction.

Textbook

- We'll be using Spring 2022 draft of my textbook *Formal Language Theory: Integrating Experimentation and Proof*.
 - See alleystoughton.us/forlan/book.pdf.

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 - Instructions on Forlan website: alleystoughton.us/forlan.
- Forlan is installed on CS Department's Linux Servers.
 - See course website for more information.

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- Final grade the letter (possibly followed by a + or -) whose value is nearest to the weighted average of the grades of the student's problem sets and course project/final exam.

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- Apart from pair work, work must be your own.
 - May discuss problem sets with others in general terms.
 - May *not* base work on other's work.
 - May *not* show draft work to others.
 - Must cite your sources.

Academic Integrity

- You are responsible for reading and understanding BU's Academic Conduct Code (for undergraduates)

`www.bu.edu/academics/policies/
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- Incidents of academic misconduct will be reported to the Academic Conduct Committee (ACC).
 - Sanctions: drop in final course grade... suspension... expulsion.

Problem Solving Sessions, Office Hours, Piazza, Gradescope and GitHub

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- Create private GitHub (github.com) repository for sharing Forlan/sml code.
 - Grant me ([alleystoughton](https://github.com/alleystoughton)) access.

LaTeX Document Preparation System

- LaTeX document preparation system useful when preparing solutions to problem sets.
- LaTeX handles mathematics very well.
- Widely used by academic computer scientists.
- More information on course website.