CPSC 229
Foundations of Computation

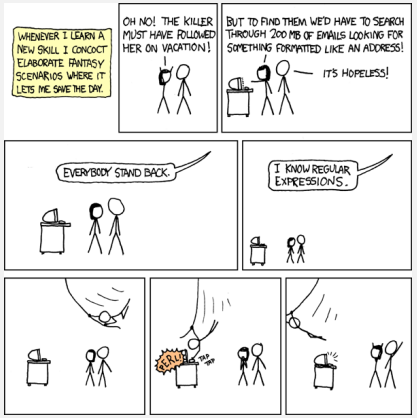
Foundations of Computation

- basic mathematical concepts
  - logic and proof
  - sets and functions
- theoretical foundations of computer science
  - regular expressions and finite automata
  - grammars
  - Turing machines and computability
- some practical applications of these concepts
  - applications labs

Why Study This?

- for a foundational understanding of the principles...
  - ...governing how computers work and what they can and cannot do
  - ...underlying the concept of efficiency
  - ...underlying programming languages and compilers – how languages are structured and how they can be processed by machines
- for skills in logical reasoning and algorithmic thinking
  - essential for constructing and debugging programs, as well as problem solving more generally
- as preparation for topics such as AI, machine learning, cryptography, programming languages and compilers, …

Or, The Real Reason...



Course Website

http://math.hws.edu/bridgeman/courses/229/s26/

CPSC 229: Foundations of Computation
Spring 2026

Instructor	Stina Bridgeman bridgeman@hws.edu Gulick 203, x3614	**Office Hours**	drop-in office hours: TBD office hours are also available by appointment if you cannot make the scheduled times
Class Hours and Meeting Place	lecture: MWF 10:50-11:50am — Napier 202	**Teaching Fellows**	TBD

Course Links

- Schedule
  (the course schedule, including links to assignments, readings, slides and examples from class, handouts, etc — pretty much everything you want on a daily basis is here)
- Textbook
  (online copy of the textbook)
- Course Policies
  (expectations and evaluation, attendance, late/makeup work, extensions, academic integrity and collaboration, use of AI, getting help, accommodations, etc — things you should read at the beginning of the semester, then refer back to as needed)
- Course Information

Key Things to Pay Attention To

- in addition to class, expected to attend five lab sessions
  - effort will be made to schedule these at a time everyone can attend
  - can be made up by attending office hours instead
- attendance policy

Key Things to Pay Attention To

- learning is an iterative process, and practice, feedback, and revision are important elements
  - revise and resubmit policy
- late policy
  - late work should be rare, not routine
    - late work is not directly penalized, but a pattern of repeated lateness significantly harms learning and performance
  - hand in something on time, even if it is incomplete
    - assignments not in my possession at the time of grading (for hardcopy handins) or printing (for electronic handins) may miss that grading window
  - use resubmits to improve, not to delay
  - for short, last-minute emergencies, communicate promptly
  - for known conflicts, plan ahead

Key Things to Pay Attention To

- assignments and grading
  - weekly homeworks + 5 applications labs
    - for learning and practice, revise and resubmit applies
  - five exams (roughly one per chapter/main topic)
  - final exam is a cumulative second chance opportunity for the material on exams 1-4
  - in-class exams carry significant weight, and an average of 70 or higher on the exams is required for a C- or better in the course

Key Things to Pay Attention To

- collaboration, outside resources, and use of AI
  - assignments are about learning the process of figuring out the answer, not simply getting the answer
  - your primary resources should be the course materials (textbook, slides and examples from class, things posted on the course webpage), office hours, and TFs
    - if you work with others or use other resources, including AI, it should be to explain and understand the course materials, not to produce solutions for assignments
  - unless otherwise specified for a particular assignment, AI is not allowed