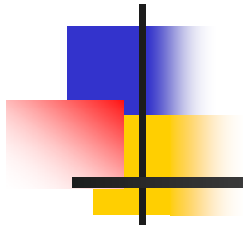


CPT S 317: Automata and Formal Languages



Spring 2012

School of EECS

Washington State University,
Pullman

MWF 10:10-11:00

Coll 220



Instructor Contacts

- Instructor:

Ananth Kalyanaraman

(pronounced: “An-anth” “Kal-ya-na-ra-man”)

EME 237

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335-6760

Weekly Office Hours: TBD
(check course website)



Objectives

- Introduce concepts in automata theory and theory of computation
- Identify different formal language classes and their relationships
- Design grammars and recognizers for different formal languages
- Prove or disprove theorems in automata theory using its properties
- Determine the decidability and intractability of computational problems



Course Organization

- Very broadly, the course will contain three parts:
 - Part I) Regular languages
 - Part II) Context-free languages
 - Part III) Turing machines & decidability



Teaching Assistants

- TBD
- Check course website for updates



Pre-requisites

- CPT S 122: Data Structures
- Math 216: Discrete Structures



Required Textbook

- Introduction to Automata Theory, Languages and Computation
 - By J.E. Hopcroft, R. Motwani, J.D. Ullman
 - 3rd Edition
 - Addison Wesley/Pearson
- Course book homepage:
<http://infolab.stanford.edu/~ullman/ialc.html>
 - Solutions to starred exercises in the textbook & Errata
- **OSBLE (Online Studio-Based Learning Environment)**
- **The Gradiance Resource (optional)**



Course Webpage

- <http://www.eecs.wsu.edu/~ananth/CptS317>

Why do I need to check the webpage?

- Lecture Notes
- Homeworks will be posted
- A tentative schedule is also posted
- Misc. static information about the course

How frequently do I need to keep checking the course webpage?

- Ideally once every day, and if not at least once before/after each class (for lecture notes)



The OSBLE Web Portal

- *Details will be posted soon on the course website*



How to get in touch with the instructor and the TA(s)?

- OSBLE (for email)
- Office hours
 - Weekly once
 - preferred way to meet one-on-one
- In addition, the instructor will be available outside of office hours to meet (appointments preferred although not necessary).



Grading

- 8 homeworks (60%) - (best 7 policy)
- 2 midterms (20%)
- 1 final (20%)

Grading Policy:

- Curved



Homework Submission Policy

- Hardcopy to be submitted *in class* on the due date
 - Early submissions allowed
- *No late submissions*
- Extensions *may* be permitted under extraordinary circumstances
 - Contact the instructor *at least 1 week prior*
- Homeworks will be posted on the course website



Homework Policy

- All homework must be done *individually*
- Cheating:
 - Helping others, getting help, looking up website for solutions, etc.
- Any deviation from the above rule will be considered cheating and will be subject to the WSU academic dishonesty policy



Exam Policy

- 2 Midterms and 1 Final
- Closed book, closed notes, comprehensive
- Make-ups will be rare and only under extraordinary circumstances
- Seek prior permission from instructor (at least 2 weeks in advance)



Course Schedule

- A tentative schedule has been posted and will be maintained on the course website
 - Subject to change as course progresses
 - Bookmark & keep checking
 - Recommended frequency: once a week
 - Look for exam schedules as well here



Lecture basics

- Classes will involve *both Slides + Board* (to roughly equal degrees)
- Lecture slides available online
 - However, no scribes from class will be made available
 - So, take your own notes in class
- For latest/updated slides, download before each use