## CS 252 - Introduction to Computational Theory - Sections 1 & 2 Winter 2016

Instructor: Dr. Dennis Ng TAs: Joel, Humphrey, Isaac, Brad, and Jarek

Office: 3322 TMCB Office: 1154 TMCB

Extension: 2-2835

Email: ng@compsci.byu.edu

Office Hours: See TA/Instructor's Hours Office Hours: See TA/Instructor's Hours

## Prerequisite: CS 236

**Text:** - Thomas A. Sudkamp, "Languages and Machines: An Introduction to Theory of Computer Science, Third Edition," 2005, Addison Wesley (required)

- Lecture Notes for CS 252 (http://students.cs.byu.edu/~cs252ng/notes.html)

## **Objectives:**

- understand the fundamental concepts in theory of computation
- know the traditional topics of formal languages, automata, computability, and computational complexity
- distinguish problems that are decidable and undecidable (tractable and intractable, respectively)

**Grading:** The final grade is calculated as follows:

Homework Assignments: 25% Team Assignments: 10% Midterm Exams (2): 40% Final Exam: 25%

Final letter grades will be given according to University (Grading) Policies as follows:

A: 93-100% A-: 90-92%

B+: 87-89% B: 84-86% B-: 80-83% C+: 77-79% C: 74-76% C-: 70-73%

D+: 67-69% D: 64-66% D-: 60-63% E: Below 60%

## Policy:

**Homework assignments.** Homework assignments will be given approximately every week and are due at the *beginning of the class lecture* on the due date. Late homework assignments will <u>not</u> be accepted; however, you are allowed to drop **one** of your lowest homework scores.

**Team Assignments.** With a group of up to <u>three</u> students, each team is required to prepare and present the solutions to a set of problems, which are similar to the homework problems, on a particular chapter <u>five</u> times throughout the semester. The sets of problems are posted under the *Class Lecture Notes* webpage, and students in the same group will receive the same grade for the assignments based on the correctness of the answers to the problems.

Midterm exams. There are two midterm exams. Everyone must take the midterm exams at the *Testing Center* on the scheduled date. The exams, same as the final, are closed book and notes.

**Final exam.** The final exam will be comprehensive, but will be weighted towards the chapters covered after the midterm exams. The final will be given *in class* on the scheduled date.