Introduction to Discrete Structures I
CS 205 – Fall 2004
Sections 06 and 07

Lecture times: Tuesday and Thursday 7:40 pm – 9:00 pm at HH-A7
Recitation class:
Section 06: Tuesday   9:10-10:05 pm HH-A7
Section 07: Thursday  9:10-10:05 pm HH-A7

Instructor: Dr. Ahmed Elgammal
Email: elgammal@cs.rutgers.edu
Email policy: you have to include “CS205” in your subject to get a response.
Office hours: Wed 2-4pm CoRE Building- room 316, Busch Campus.

Class webpage: http://www.cs.rutgers.edu/~elgammal/cs205.html
Class webpage will contain: Class Calendar, HWs, Quiz dates, Quiz Solutions, Grades and announcements.
Always check class web page for the latest announcement.

TA: ROHAN FERNANDES
TA Email: rohanf@paul.rutgers.edu
TA office hours: TBA

Prerequisite: CS 111


Topics:

Tentative Course Outline
- Basics and motivation; set notation; relations; functions (Sections 1.6 - 1.8)
- Propositional Logic (Sections 1.1 - 1.2)
- Tautologies, Normal Forms, Hardware Implementations (Sections 10.1 - 10.3)
- First-Order Logic; quantifiers, predicates, truth and validity (Sections 1.3 - 1.5)
- Methods of Proof (Sections 3.1 - 3.2)
• Induction; Recursive definitions; Recurrence Relations; Graphs (Sections 3.3 - 3.5)
• Regular Expressions; Finite Automata; Computability (Sections 11.1 - 11.5)
• Preliminaries for Algorithm Analysis, Cryptography (Sections 2.2 and 2.6)

**Homework:** about 10 homework assignments (one weekly or biweekly). HWs are typically due on Tuesdays.

**Quizzes:** about 10 short quizzes to be given in class after submission of each homework. Quizzes will be typically on the Thursdays.

**Midterms:** Two midterms. Will be given on class at lecture time. The first midterm will be on week 5 (on or around 10/5/2004). The second midterm will be about week 9 (on or around 11/2/2004). Each midterm will cover a part of the course topics.

**Final exam:** Comprehensive final exam. Tuesday Dec 21st at 8-11pm HH-A7

Final exam schedule: [http://scheduling.rutgers.edu/examfall.htm](http://scheduling.rutgers.edu/examfall.htm)

**Grading Policy:**

- Homework: 25%
- Quizzes: 15%
- Midterm 1: 15%
- Midterm 2: 15%
- Final Exam: 30%

**Academic Integrity**

All students are expected to adhere to the [university policy on academic integrity](http://universitypolicy). Copying and Cheating will not be tolerated.