Welcome to CSci 4041H

Algorithms and Data Structures
Instructor (me)

James Parker
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Teaching Assistant

Ravali Kandur
Textbook

Introduction to Algorithms, Cormen et al., 3rd edition
Class website

www.cs.umn.edu/academics/classes
Or google “umn.edu csci class”

Syllabus, schedule, other goodies

Moodle page will have grades and Possibly homework submission
www.cs.umn.edu
20% Homework
20% Programming assignments
10% Project
25% Midterm (Oct. 20)
25% Final (Dec. 23)
Syllabus

Grading scale:
93% A
90% A-
87% B+
83% B
80% B-
77% C+
73% C
70% C-
67% D+
60% D
Below F
Schedule

Ch. 1, 2, 3: Introduction
Ch. 2.1, 2.3, 7, 8: Sequences and Sets
Ch. 6, 9, 13, 32: More Sequences and Sets
Ch. 22, 23, 24, 25, 26: Graph Algorithms
Ch. 33: Geometric Algorithms
Ch. 4.2, 30, 31: Algebraic and Numeric Alg.
Ch. 34: NP-Completeness
Any questions?
What can computers do?

What can computers do easy?

What is hard for computers to do?
What can computers do?

What can computers do easy?
- rapid computations of known equations

What is hard for computers to do?
What can computers do?

What can computers do easy?
- rapid computations of known equations

What is hard for computers to do?
- identifying patterns and guessing
Repetitive tasks
Repetitive tasks
Repetitive tasks
Auto leveling?
Recent advances
Recent advances

2002: 1 month study

Today: Top amatuer