Purpose: to study discrete structures, including logic, sets, combinatorics, and proof techniques, with emphasis on applications and problem solving.

the Mock Turtle said, "No wise fish would go anywhere without a porpoise."

Outline:

• Historical perspectives
• Logic and sets
• Functions and relations
• Asymptotic growth
• Cardinalities and infinities
• Proof types
• Counting
• Probability
• Graphs and trees
• Basic algorithms
• Computation models
• Uncomputability
• Applications

"I didn't know it," the Knight said, a shade of vexation passing over his face.

Prerequisites: Some programming background would be helpful.


Grading scheme: Midterm: 25%
Final: 25%
Homework: 25%
Project: 25%
Extra credit: 10%
• The homework assignments will be turned in and graded. Solutions will be reviewed in class, and also handed out.

• There will often be in-class extra-credit problems: participation in these would help your grade (although non-participation would not hurt your grade).

• Extra credit will also be given to the first finder of each mistake in my handouts and slides.

"It seems a shame," the Walrus said, "To play them such a trick."

Important Advice:

• Please attend every class (much of the material builds on itself sequentially, so missing a class will hurt your ability to follow subsequent material).

• Please do not fall behind or procrastinate; "cramming" won't work in this class!

• Start on the project early (before mid-semester); you won't be able to do it in the last week!

• Please read your E-Mail often - it will be used as a primary means of notification.

• Please feel free to ask questions at any time; the TA and myself are here to help you.

• Important handouts (e.g., syllabus, slides, homeworks, exams, Q&A, etc.) will be posted on the class Web page at www.cs.virginia.edu/~robins/cs202

• TA office hours will be announced.

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