













other disciplines

other disciplines

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Schedule & Required Reading

- Will cover ~1 chapter per week
- You are responsible for everything in S&G unless I say otherwise
- You are responsible for reading the chapter of S&G *before* it is discussed in class

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• Lectures will focus on difficult & supplementary topics

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• Read ch. 1 of S&G for the next class

Grading Laboratories • Total points: 500 • Essential to solid understanding of CS ✓6 homeworks: 20 each, 100 maximum • We take attendance at labs ✓ 6 quizzes: 20 each, 100 maximum • We do not penalize for non-attendance (so ✓13 labs: 10 each, 120 maximum long as you do the labs on time) ✓ comprehensive final: 180 • However, regular lab attendance may help We will drop the lowest homework, quiz, ٠ and lab grade your grade, if it is borderline • Keep your graded papers • Laboratories are held in the Crux Lab, Subject to change! ٠ Claxton Complex 104 1/20/04 CS 100 - Lecture 1 15 1/20/04 CS 100 - Lecture 1





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Misconceptions About CS

- · Computer science is the study of computers
- Computer science is the study of how to write computer programs
- Computer science is the study of the uses and applications of computers and software

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Definition of CS

<u>Computer Science</u> is the study of *algorithms*, including:

· Their formal and mathematical properties

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- Their hardware realizations
- Their linguistic realizations
- Their applications

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To find mean proportional "Algorithm" between AB and BC · Named for al-Khowarizmi 1. Place AB, BC in straight line (780-850 CE) 2. Upon AC draw semicircle • Persian mathematician & ADC teacher at Mathematics Inst. 3. From B draw BD in Baghdad perpendicular to AC · Described procedures for 4. DB is required mean doing arithmetic with proportional between AB and Hindu-Arabic numerals · These procedures were BC called "algorithms" - Euclid (3rd cent. BCE), Bk. VI, Prob. 13 1/20/04 CS 100 - Lecture 1 1/20/04 CS 100 - Lecture 1 21

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Algorithms Make Use of Other Algorithms

- It says, "Upon AC draw semicircle ADC"
 How do you do this?
- It says, "From B draw BD perpendicular to AC"
 How do you do this?
- Algorithms for these operations are given elsewhere in Euclid
- Where does this stop? What can we assume?

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