CSCI 239 — Discrete Computational Structures

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logistics

instructor

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    PENGL 258, (320) 363-3083

    office hours: M 12:30–1:30pm, R 1:00–2:00pm

textbook

    Discrete Mathematics, Irani et al., zyBook

website

    `https://csbsju.instructure.com/courses/12826`

- I prefer to be called $(\{\varnothing, \text{Dr.}, \text{Prof.}\} \times \{\varnothing, \text{Jeremy}, \text{Iverson}\}) - \{(\varnothing, \varnothing)\}$
- Encourage questions right away
- Emphasize the importance of the Canvas site for finding information about the class
- office hours
    - Mention outlook calendar & my home page
        - For those unfamiliar with Outlook meetings, then they should schedule another way and we will go over this in meeting
- go through Canvas page organization quickly

learn how to express ourselves precisely (read: unambiguously) using the language of logic

learn the techniques necessary to establish logical certainty

learn the fundamental discrete structures useful in computer science for reasoning about proposed solutions to computational problems

logic

proofs

sets, functions, relations, growth of functions, induction, sequences, counting, discrete probability

activity

individually:
- complete the following sentences:
  1. This semester I hope to…
  2. My best advice for a first-year student to succeed academically is…

in groups of three:
- introduce yourselves to each other
- discuss your responses to the sentences above
- figure out what I prefer to be called

remind students to reflect on their hopes often during the semester

remind students to take their own advice re succeeding in this and any other courses that they may be in this semester.

simple idea

traditional-grading decompose assignments, quizzes, etc. into points — mastery of learning objectives is demonstrated by accumulating a certain number of points.

how points are allocated and partial points awarded will influence what types of activities lead to good grades in class, not necessarily what learning objectives must be mastered to get desired grade.

for example, if labs are weighted more heavily, then grades will generally be higher because labs are usually seen as learning activities and are graded on completion.

however, if labs are weighted lower, because they are a learning activity and by the nature of being graded on completion do not necessarily represent mastery of learning objectives, then some other assessment type must be weighted higher. If exams are weighted higher, then students who struggle with exams may be disadvantaged and so on.

you are no longer bound/limited by how I allocated points. a particular grade is achieved by demonstrating mastery of a particular number of learning objectives rather than accumulating a particular number of points. this gives you much greater control over your grade and does a better job reflecting how much you learned from the course.

standards-grading shifts focus from how mastery of learning objectives are assessed (read: how we allocate points) to which learning objectives are mastered. put simply, we stop looking at how / when you

simple idea

traditional-grading decompose assignments, quizzes, etc. into points — mastery of learning objectives is demonstrated by accumulating a certain number of points.

mastery-based grading decompose assignments, quizzes, etc. into their representative learning objectives — mastery of learning objectives is demonstrated by mastering learning objectives.

profound consequences

focused is shifted from *how*/*when* you learn to *what* you learn.

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our learning objectives

our grading specifications

our schedule

Canvas, as far as I know, is not capable of tracking grades in this way, so I WILL NOT be using the grading feature of Canvas. It will only be used to track completion of certain activities, i.e., zyBook assignments, labs, etc.

questions?

activity

if there is still time, talk about all of the material for this course being hosted on GitHub, and how they can access it

download this slide deck and follow the instructions on the next slide

find out what the reading is for Thursday