

# CSSE 230

EditorTrees worktime

# Midterm Feedback Responses

## Course: Plus

- Programming assignments ++++++
- Explanations in class ++++++
- Quizzes ++++++
- Assignments reinforce lecture material +++
- Schedule, materials available online ++
- Working in teams on projects ++
  
- “The programming assignments are difficult, but clearly explained, to the point where I think it would be possible to learn almost all of the course material just from figuring out how to do those. That works very well for me.”
- “The lectures are very good at holding my attention. They make learning the topics very enjoyable and leave me off in a good place to start the homework. The assignments are very good at teaching in-depth concepts by making us implement new things on our own.”

# Midterm Feedback Responses

## Course: Delta

- Change due date of homework (deadlines too close) ++
- More examples ++
- Solutions to HW +
- Sometimes not all of quiz is covered +
- More in-depth slides or alternative resources (hard to find good explanations in textbook) +
- Assignments too difficult +
- More exam prep resources +
  
- “...there is too much work at one time. I hear this course is often split into 2 full semesters at a normal college. That's a lot to squeeze in one 'quarter', more or less one 'semester'. The amount of learning starts to decline after a certain workload is exceeded. I think this class is well beyond that threshold.”
- “Have more in-depth slides or a source that better list important aspects of the lectures. The book is hard to find good explanations for some subjects and the slides tend to only have general ideas. More things like the video provided for induction would be nice.”

# Midterm Feedback Responses

## Self: Plus

- Work hard on assignments ++++++
- Help from instructor / tutors +++++
- Practice coding independently +++
- Find alternative resources (Internet, book, etc) +++
- Talk to other students ++
- Focus hard in class +
- Starting / finishing HW early +
- Prep for lectures / working ahead +
- Review class notes, quizzes +
- Take extra notes +
  
- “Doing practice exams a week in advance and reflecting on past exams. Whiteboarding out programs before writing them.”
- “Completed all assignments as early as i can so that if i have questions i can find resources online or come talk to you.”

# Midterm Feedback Responses

## Self: Delta

- Better time management, start earlier +++++
- Visit professor's office hours more, ask questions +++
- Review knowledge more often +++
- Textbook reading ++
- Study better for exams ++
- Take homework more seriously ++
- Focus more on written assignments ++
- Work harder +
- Take practice exams seriously +
- Extra practice +
- Focus more in class +
  
- "Do programming problems not by fixing bugs, but make them function correctly."
- "I could focus less on my notes and more on the actual lecture, stay on top of assignments, ask for help when needed."
- "Tackle practice exam questions a little harder. Find some more difficult coding examples that might be on exams"

# Midterm Feedback Responses

## Surprised

- Difficult + + + + + + + + + + +
- High workload + + + + +
- More math/concepts than expected + +
- Teamwork emphasized + +
- N/A, similar to expectations +
  
- “not as much emphasis on programming. more of a learn about topics in class then figure out the programming on your own”
- “The jump from 220 to 230 is astronomical and I was not expecting that. Other than that, the way of learning is a little different for me because I find myself doing more work to learn the material outside of class.”
- “The course is harder than i expected, but it does helps me a lot.”

# sumOfHeights from HW5:

- Easy to find sum of heights in a tree if we don't care about efficiency.

```
return height() + left.sumHeights() + right.sumHeights()
```

- But look at the repeated work!
- Other options:
  - Add a field? But far better to hide within param/return.
  - Store heights in an array? But better to use less space.
  - Return multiple things? Very nice. This is a pattern that works for many problems.
- Let's look at efficiency of two solutions
  - The code is instrumented to count method calls.
- This style of efficiency is a big deal.
  - Could you write  $O(n)$  `isHeightBalanced()` in the same way?
  - ... or `sumOfSizes()` or any function that needs to recurse on its subtree to get some partial info?

# Upcoming topics

- Hash tables and priority queues