Introduction

CS 211

Winter 2020
Road map

- What’s it all about?
- Topics
- Policies & grades
- Academic honesty
- Help & advice
What CS 211 is all about (1/2)

From the course abstract:
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- *CS 211 teaches foundational software design skills at a small-to-medium scale.*
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- **CS 211 teaches foundational software design skills at a small-to-medium scale.** We will grow from writing single functions to writing interacting systems of several components.
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- **Then we transition to C++, which provides abstraction mechanisms such as classes and templates that we use to express our design ideas.**
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- Topics include…
Topics

- Language mechanisms
- Design techniques
- Engineering practices
Topics

- Language mechanisms
  - New syntax for functional programming

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- Language mechanisms
  - New syntax for functional programming: expressions, values, conditionals, variables, functions

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    - Statements: sequencing, iteration
    - Mutation: objects, assignment

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## Grade composition

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* Divided equally.
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In CS 211, we take cheating very seriously.

- Cheating is when you:
  - Receive help of any kind on an exam (except from authorized course staff)
  - Give help of any kind on an exam
  - Share (give or receive) homework code with anyone who is not your official, registered partner
  - Obtain code from an outside resource, such as Stack Overflow

- Please don't do these things, because:
  - If you don't write code, you won't learn; try to embrace the struggle!
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If unsure about your particular situation, ask the instructor or other course staff
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  The office hours schedule will be linked from the course web page: https://users.cs.northwestern.edu/~jesse/course/cs211

- **Online.** Ask questions on Campuswire: https://campuswire.com/c/G123C6150
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- Be kind to each other.
I try not to make fun of people for admitting they don’t know things.

Because for each thing “everyone knows” by the time they’re adults, every day there are, on average, 10,000 people in the US hearing about it for the first time.

Fraction who have heard of it at birth = 0%

Fraction who have heard of it by 30 ≈ 100%

US birth rate ≈ 4,000,000/year

Number hearing about it for the first time ≈ 10,000/day

If I make fun of people, I train them not to tell me when they have those moments, and I miss out on the fun.

“Diet Coke and Mentos thing”? What’s that?

Oh man! Come on, we’re going to the grocery store.

Why?

You’re one of today’s lucky 10,000.
Relative homework difficulties

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Relative homework difficulties

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<th>HW</th>
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(On a scale from 1 to 10)
Suppose each function is called with an arbitrary integer value. Circle *all possible* outcomes:

- **T** The function returns `true`
- **F** The function returns `false`
- **A** The program terminates abnormally (a crash!)
Preexamination!

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```cpp
bool g(int z)
{
    return false;
}
```
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T  F  A
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F The function returns \textbf{false}

A The program terminates \textit{abnormally} (a crash!)

```cpp
bool h(int z)
{
    int y = z / 0;
    return false;
}
```
Preexamination!

Suppose each function is called with an arbitrary integer value. Circle *all possible* outcomes:

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}
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