

CS 105

The programmers of tomorrow are the wizards of the future. You are going to look like you have magical powers compared to everyone else.

- Gabe Newell, co-founder of Valve

Computer Science

Introduction to Computer Science

87%

...of you have no prior
programming experience.

93%

...feel “as prepared” or “less prepared” than your peers.

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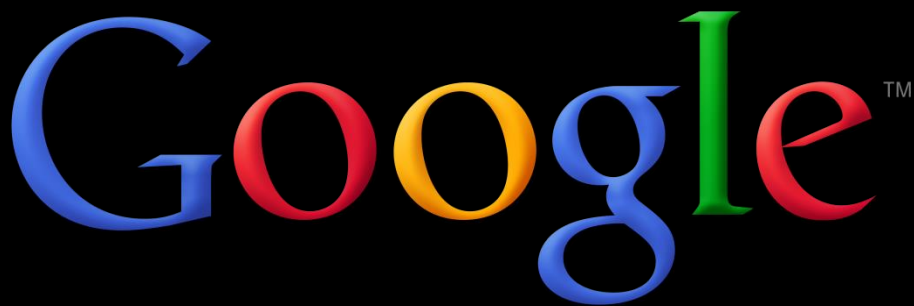
Wade Fagen



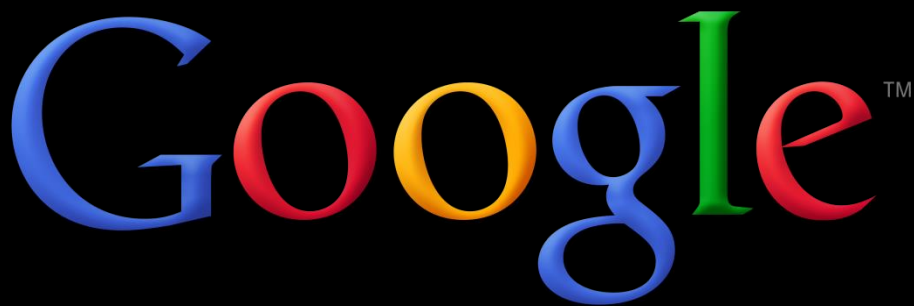
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Morgan Stanley

Teaching Assistants

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Course Assistants

CS @ Illinois

Top Five Computer Science Programs (2014)

Berkeley Illinois
MIT Stanford
Carnegie Mellon University

*“I just completed a summer internship with a **big-4 accounting firm** and, of all the classes I have taken, CS 105 was one of the **most helpful ones**.*

*Thanks to [CS 105] I always had an **edge over all the other interns** when it came to presenting or analyzing data to my boss.”*

-Junior, College of Business

Scratch

JavaScript

HTML

CSS

AJAX

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JavaScript

HTML

CSS

AJAX

Microsoft Excel

eight machine problems

programming

social data

cryptography

big data

analytics

...and more...

eight machine problems

+

your awesome final project

Midterm #1

Tuesday, Oct. 7th

8:00pm – 9:30pm

Midterm #2

Tuesday, Nov 18th

8:00pm – 9:30pm

Final Exam (AL1)

Mon., Dec 15th

8:00am – 11:00am

Final Exam (AL2)

Fri., Dec 19th

8:00am – 11:00am

MPs: Due Tuesdays at 6:00pm

MP0: Tuesday, Sept. 9th

MP1: Tuesday, Sept. 16th

MP2: Tuesday, Sept. 23th

...

Lab Sections
(attendance required)

Each week, you will be paired up
into a team of 2-4 students.
(New teams every week.)

All of you will complete the lab.

Your TA will randomly grade one
team member's submission.

All of you will receive that grade.

Lectures

Attendance not required.

Attendance not required.

...but they should be fun and
way worth it.

Weekly Activities

Activity 0

Released: NOW!

Due: By 9:00am Wednesday

Activity 0

Released: NOW!

Due: By 9:00am Wednesday

approx. 1 hour to complete

Exams: 500 pts

Midterm #1: 150 pts

Midterm #2: 150 pts

Final Exam: 200 pts

MPs + Project: 340 pts

MP0, MP1: 20 pts

MP2 – MP6: 30 pts

MP7: 50 pts

Final Project: 100 pts

Weekly Stuff: 160 pts

Readings: 100 pts*

Labs: 60 pts**

*: Can miss one,

**: Can miss two,
without losing
points.

A+	970+
A	930 - 969
A-	900 - 929

D+	670 - 699
D	630 - 669
D-	600 - 629

B+	870 - 899
B	830 - 869
B-	800 - 829

F	0 - 599
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C+	770 - 799
C	730 - 769
C-	700 - 729

+1
problems

Read

See

Practice

Do

Read: Weekly Activities

See: Lecture

Practice: Lab Sections

Do: Machine Problems

Piazza:

CS 105's course discussion board

- MP questions
- Lecture questions
- Q&A Format

Required Materials

i>Clicker (v2)

Microsoft Excel*

Windows: 2010 or 2013

Mac: 2011

*: Available for use on campus labs.

exams

machine problems + project

weekly assignments

Proficiency Exam

Sign up by Wednesday evening!

Algorithm

An **algorithm** is a step by step procedure of tasks to complete.

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An algorithm is the first step to a computer program.

How many people are in a room?

1. Start with the number 1.

1. Start with the number 1.
2. Stand Up

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2. Stand Up
3. Find someone else who is standing.

1. Start with the number 1.
2. Stand Up
3. Find someone else who is standing.
4. Add your numbers together.
 1. One of the two people sits down.
 2. The other one takes the new number and returns to Step 3.

CS 105

<https://courses.engr.illinois.edu/cs105/>