Introduction to Computer Science

Professor: Andrew Case
Office: WWH 424
Office Hours: Monday / Thursday 3:30-5pm; or by appointment
Email: acase@cs.nyu.edu (for non-technical issues, otherwise use the discussion forums)
What is covered

- Fundamentals of Programming
  - Primitive Data Types (Elementary Programming)
  - Flow control (selection statements, loops)
  - Functions
- Object Oriented Programming & Data Structures
  - Arrays, Objects and Classes, Strings
  - Inheritance, Polymorphism, Abstracts, Interfaces
- Advanced Concepts
  - GUI Basics & Graphics
  - Exception Handling & Text I/O
  - Recursion
What probably will not be covered

- This is just an intro course!
- In depth and specialized programming
  - Complex data structures (trees, etc.)
  - Network programming
  - Web programming
  - Game programming
  - Parallel programming
  - Scientific computing
Prerequisites

- Introduction to Computer Programming (CSCI-UA 0002) departmental permission assessed by placement exam.
Who should take this course

- If you have an interest in what makes things tick
- If you feel gratification in making things
- If you want to make software applications
- If you plan to use computer programs in your discipline

Who should **not** take this course

- If you have never taken a structured programming course before, take CSCI.UA-0002
- If you're just looking to fill a math or other science requirement (this will not be an easy course!)
Help

Textbook


Website

- Lecture slides
- Examples
- Forums (Piazza)

- Lab tutors (14 Washington Place, Lower level)
- Professor office hours
Attendance

• Is Mandatory

• If you miss a class
  • Go through the examples and rewrite the code yourself!

• If you still don't understand something
  – See me at office hours
  – Visit the lab tutors
  – Post to the forums and/or email the e-tutor
Grading

Homeworks: 25%
Quizzes: 5%
Participation: 5%

Exams: 65%
  - Midterm1: 15%
  - Midterm2: 15%
  - Final: 35%
• One quiz per week (based on reading)
• One programming assignment per week
• Homeworks are required! If your grade for the homeworks is a failing grade, you will fail this course.
• Assignments can be turned in up to 3 days late for a 10% deduction per day late
• 5 grace days for the semester – covers any possible scenario (sick, hardware failure, travel, etc.), so don’t waste them on procrastination
“NYU Classes”

- All assignments submitted on it
- Grades will be posted here. Along with feedback
- Quizzes will be completed here
Piazza / Discussion

All technical questions should go here
Counts to your participation
Post anonymously
Answer questions

Learning is a collaborative process. We all learn better together.
Cheating

• Talking about ideas on how to solve a problem is **not** cheating.

• **Showing students your assignment code or using other people's code is cheating!**

• **Code Likeness Utility (CLU)**
  • obfuscates and generalizes code submitted
  • compares that code for similarity
  • reports copied code
  • cheaters fail
Class Culture

- Open discussion about programming
  - If you email me a question about programming, I will ask you to post it to the forums.
  - If you have questions others do too
  - More discussion – more learning
  - Learn from each other
  - Practice
  - Try new things

- Class participation makes the class better
General Advice

• Programming is an incremental learning experience.
  • **DO NOT FALL BEHIND!** You won't be able to catch up
  • Do all the homeworks

• Programming is a different way of thinking. It takes a large amount of time/practice to understand and use these concepts

• Ask questions!!! About anything and everything (computer related)

• Do not share your code

• Write your own code

• If struggling come see me ASAP, do not wait