

# *Intro to Programming II*

## *Introduction*

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### 1-2: Syllabus

- Office Hours
- Course Text
- Prerequisites
- Grading Policies

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### 1-3: Topics

- This class is designed to give you more familiarity and skill in Java Programming.
  - OO design
  - Basic Software Engineering skills
  - Abstraction
  - Practice, practice, practice!
- You'll also get an introduction to programming in C.

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### 1-4: Grading

- You'll have a series of *lab assignments* to do
  - Done in-class
  - Satisfactory/unsatisfactory grade
- You'll also have four programming projects
  - Larger; 2 weeks apiece
- Plus two midterms and a final
  - In class, closed notes
- I believe that the best way to learn a topic like programming is to do it.

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### 1-5: How to Succeed

- Come to class. Pay attention. Ask questions.

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### 1-6: How to Succeed

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  - A question as vague as "I don't get it" is perfectly acceptable.
  - If you're confused, *at least* half the class is also.
  - Don't wait until after class to ask!

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### 1-7: How to Succeed

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  - I am very available to students.

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- Start the homework assignments and projects early
  - Waiting until the last minute to start projects is a bad idea.

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### 1-9: How to Succeed

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- Come by my office
  - I am very available to students.
- Start the homework assignments and projects early
  - Waiting until the last minute to start projects is a bad idea.
- Read the textbook.
  - Ask Questions! Come to Class!

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### 1-10: Words of Wisdom

- "90% of life is showing up." – Woody Allen
- "Just keep swimming." – Finding Nemo
- "Never mistake activity for achievement." – John Wooden
- "Teachers open the door. You must step through on your own." – Chinese Proverb.

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### 1-11: Words of Wisdom

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- "Teachers open the door. You must step through on your own." – Chinese Proverb.
- "Do I contradict myself? Very well, then. I contradict myself. I am large; I contain multitudes." - Walt Whitman

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### 1-12: Lab 1: Java Practice

- Write a program that converts from Fahrenheit to Celsius. It should prompt the user for a temperature, and then ask whether the input is in Fahrenheit or Celsius. It should then calculate the temperature for the other scale. The relevant formulae are:
  - $F = \frac{9}{5} * C + 32$
  - $C = \frac{5}{9}(F - 32)$
- You should have a main method that prompts the user for a temperature and asks whether it's Fahrenheit or Celsius
- You should have static methods called FtoC and CtoF.

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#### 1-13: Lab 1: Java Practice

- (L & L 2.13) - Write a Java applet that draws the Olympic Logo. The circles in the logo should be colored (L to R): blue, yellow, black, green, red.

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#### 1-14: Lab 1: Java Practice

- Write a program that creates an array of 50 integers. Use a for loop and an if statement to place a 1 in all cells where the index is even, and a 0 in all cells where the index is odd. (the first index is 0.) For example, a[3] should contain a 0, and a[2] should contain a 1. Print out the array after filling it in.

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