

### Spring 2020

# **Course Description**

Object-oriented concepts and their application to human-computer interaction. Concepts to be covered include objects, classes, inheritance, polymorphism, design patterns, GUI interface guidelines, and design of interfaces. There will be programming projects in one or more object-oriented languages using one or more GUI interface guidelines. Prerequisite: CS 226.

## **Course Objectives**

Students successfully completing this course should:

- 1. Have a good understanding of and be able to write programs applying object-oriented concepts, including classes, objects, messages, inheritance, polymorphism, and dynamic binding
- 2. Understand the principles of human-computer interaction and be able to design good human-computer interfaces.
- 3. Understand and be able to apply design patterns.
- 4. Be able to write programs in Java and Javascript.

#### **Textbooks**

User Interface Design for Programmers by Spolsky

Designing Interfaces, 3rd Edition by Valencia, Brewer, and Tidwell

Head First Object-Oriented Analysis and Design by Pollice, West, and McLaughlin

The Object-Oriented Thought Process, Fourth Edition by Weisfeld

These books are all available free online from the ACM Learning Center if you are an ACM member. You can get a student membership for \$19 for a year.

#### Grading

Homework 40% Midterm exam 30% Final Exam 30%

#### **Academic Honesty**

Working together on programs is not allowed. Copying of programs from any source, including classmates and the Internet, is not allowed. You are allowed to talk to classmates and others about programs, but you are not allowed to look any anyone else's code, either to give or receive help, other than the textbook or code provided by the instructor.

For a first offense, your course grade will be reduced by 1.0. For a second offense, your course grade will be 0.

#### Attendance

Attendance is required. If you have more than three unexcused absences before the last date for dropping you will be dropped from the course. If your fourth unexcused absence occurs after the last date for dropping you will receive a grade of 0.