ITP 265: Object-Oriented Programming
Units: 4
Summer 2021

Location: TBD (See schedule of courses)

Instructor: Greg Pohlner
Office: TBD. Will be posted on course site.
Office Hours: TBD. Will be posted on course site.
Contact Info: All general course/assignments questions should be asked on Piazza (every student will receive an invitation at the start of the semester).

Other questions should be asked via email: pohlner@usc.edu
(General timeline for replying to emails is within 24 hours)

Teaching Assistant: TBD
Office: TBD
Office Hours: TBD
Contact Info: TBD

IT Help: Provided by Viterbi IT
Hours of Service: 8am–5pm M-F
Walk-in: DRB 205
Contact Info: (213) 740-0517
Email: engrhelp@usc.edu

Course Description

This course focuses on problem solving within the object-oriented programming paradigm. This is the second course in the introductory series for the programming minor. Students will expand upon what they learned in their introductory programming course, applying it to the Java programming language. Students will learn how to design and create classes in Java using constructors, accessors, and mutators to maintain object state. The course focuses on object-oriented programming design, and students will learn about inheritance, polymorphism, abstract classes, and interfaces. Students will learn best practice approaches for software design using object-oriented principles and some basic design patterns. Students will be introduced to collection classes and how to use basic data structures. By the end of the course, students should feel comfortable designing a system with multiple classes using inheritance.

Learning Objectives

- Build and strengthen programming and software design skills
- Understand the difference between classes and objects
- Design classes within Java to represent real-world data
- Understand basic object-oriented principles such as inheritance and polymorphism
- Use the Java collection classes to solve real-world problems
- Design a system with multiple classes using inheritance

Prerequisite(s): ITP 115 or ITP 165

Course Notes

Format: This course will make use of several tools for content and assignments including Google Drive, Blackboard, and Piazza. It is the student's responsibility to attend class and understand how and where class information is located. Lecture notes and any supplemental course content will be posted to Google Drive and/or Blackboard for use by all students. Any and all announcements for the course will be posted to the class discussion forum. All assignments will be submitted through Blackboard unless otherwise noted.

Required Readings and Supplementary Materials

The required book for this course will be customized version of Java Early Objects with zyLabs by Roman Lysecky and Adrian Lizarrago through an online textbook platform, ZyBooks: https://www.zybooks.com/catalog/java-early-objects/

Course Structure

The class meets for one hour and 50 minutes twice a week for a total of 3 hours and 40 minutes. One midterm exam will be given. Programming assignments and the final exam will be assigned to be completed outside of class time. Access to a laptop computer during class is required. ITP does have a laptop loaner policy for students enrolled who do not have a personal laptop.

Grading Breakdown

Option 1:

Item	% of Grade
Assignments (weighted proportionally)	40
zyBook Reading Activities (Option 1)	10
Midterm	20
Final Exam	30
Total	**100**

Option 2:

Item	% of Grade
Assignments (weighted proportionally)	40
zyBook Reading Activities (Option 2)	0
Midterm	25
Final Exam	35
Total	**100**

Grading Scale

Course final grades will be determined using the following scale

A   94-100
A-   90-93
B+   87-89
B   83-86
B-   80-82
C+   77-79
C   73-76
C-   70-72
D+   67-69
D   63-66
D-   60-62
F   59 and below

If you are taking the class with a grade of P/NP, you must earn a grade of 70% or higher in order to receive a P.

Programming Assignment Policies

Programming assignments will generally be given weekly due one week after they are assigned and should be completed individually. All code should be submitted on Blackboard (unless otherwise stated) and must compile.

Homework

The assignments will be posted on the course's Weekly Overview, and submission link will be on Blackboard under the "Assignments" section. Each assignment will include instructions, requirements, point breakdown, a due date, and a link for electronic submission. Assignments must be submitted using this link. Assignments will be digitally submitted through Blackboard except where explicitly specified.

It is the student's responsibility to submit assignments **on or before** the due date. Assignments turned in up to 24 hours late will have 15% of the total points deducted from the graded score. Assignments turned in 24-48 hours late will have 30% of the total points deducted from the graded score. Assignments turned in 48-72 hours will have 50% of the total points deducted from the graded score. After three days, submissions will **not** be accepted, and will result in a score of 0 (zero). Each student will be allowed **TWO** 24-hour late assignments for "free", which may not be used on final exam, and students must email the instructor (not TA).

Students are required to keep a copy of all of their assignments. Frequent backups to an external drive or to the cloud is strongly recommended. ITP is not responsible for any work lost.

Grading Timeline

Assignments will be graded, and students will receive feedback within two weeks after submission.

Grading Issues

Students will have two weeks after graded feedback is given to contest scores (e.g. assignments, labs, exams). After two weeks, scores will not be changed.

Additional Policies
General

No make-up work (except for documented medical or family emergencies) will be offered.

Attendance may be taken during lecture sessions electronically, verbally, or via a roster passed around the room. Do not sign in for another student; doing so is an academic integrity violation. Attendance is not mandatory, but students are responsible for any announcements made during lecture time and understanding material covered in class. Student work will be graded on the assumption that they have mastered material from class.

Do not reproduce, distribute, or post any lecture material, assignments, or exams publicly without my written consent. Students may take notes and make copies of course materials for their own use. Students may not post my course materials on sites such as but not limited to Stackoverflow, CourseHero, etc. Doing so is a copyright violation and in some cases may also be an academic integrity violation that will be dealt with accordingly.

ITP offers open lab use for all students enrolled in ITP classes. These open labs are held beginning the second week of classes through the last week of classes. Hours are at https://itp.usc.edu/current-students/open-lab-schedule/. In addition, ITP has a laptop loaner program for students who may need temporary use of a laptop in order to complete an assignment.

Late Add

Per university policy, students are allowed to add the course until the end of week three. Any students wishing to add the course should plan on attending the course from the beginning of the semester. Upon adding the course after week 1, the student should email the instructor **immediately** to make sure there is a plan for completion of work and learning missed materials.

Any missed work is required to be completed and submitted according to the schedule provided by the instructor.

Academic Integrity

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles.

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in **SCampus** in Part B, Section 11, "Behavior Violating University Standards" https://policy.usc.edu/scampus-part-b/ .   Other forms of academic dishonesty are equally unacceptable. See additional information in **SCampus** and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Academic integrity tutorials can be found at https://libraries.usc.edu/research/reference-tutorials

Examples of behavior violating University standards:
- The submission of material authored by another person but represented as the student's own work, whether that material is paraphrased or copied in verbatim or near-verbatim form.
- Obtaining for oneself or providing for another person a solution to homework, a project or other assignments, or a copy of an exam or exam key without the knowledge and expressed consent of the instructor.
- Unauthorized collaboration on a exam, homework, or other assignment.
- Fabrication: Submitting material for lab assignments, exams, class projects, or other assignments which is wholly or partially falsified, invented, or otherwise does not represent work accomplished or undertaken by the student.

If the instructor, a grader, or a lab assistant **suspects** you of academic dishonesty, it has to be reported to SJACS (https://sjacs.usc.edu). Do not share assignments with any other people. Do not submit another person's work as your own. Do not look at other students' papers during exams. Do not leave the room during an exam without permission. **Do not cheat! As Trojans, we are faithful, scholarly, skillful, courageous, and ambitious.**

Viterbi Honor Code

Engineering enables and empowers our ambitions and is integral to our identities. In the Viterbi community, accountability is reflected in all our endeavors.
Engineering+ Integrity.
Engineering+ Responsibility.
Engineering+ Community.
Think good. Do better. Be great.
These are the pillars we stand upon as we address the challenges of society and enrich lives.

ITP 265 Course Schedule: A Weekly Breakdown

Note: Approx. 8 hours/week of work outside of class is expected outside of class.
Reading (2-3 hrs/wk) + HW (5-6 hrs/wk).

Week	Topics	Reading	Assignment
1	Course overview. Basic Programming constructs	Zybook, Ch 1	HW00: Intro *due Sunday of week 1*
2	OOP Overview. Java APIs	Zybook, Ch 2	HW01: Java Sampler *due Sunday of week 2*
3	Scanner and InputHelper. Classes and Objects. Constructors.	Zybook, Ch 3	HW02: About Me game *due Sunday of week 3*
4	OOP. Class design and UML	Zybook, Ch 3	HW03: Bookteaque *due Sunday of week 5*
5	Arrays and Review	Zybook, Ch 4	HW03: Bookteaque *due Sunday of week 5*
6	**Midterm**	Zybook, Ch 5	HW04: StudentStore *due Sunday of week 6*
7	Enums. Inheritance	Zybook, Ch 6	HW05: Monsters *due Sunday of week 7*
8	Inheritance and Polymorphism		
9	Abstract Classes and interfaces	Zybook, Ch 7	HW06: Event Ticketing System *due Sunday of week 9*
10	. File I/O. Exception Handling	Zybook, Ch 8	HW07: Amazon Store *due Sunday of week 10*
11	Using Data Structures. Maps	Zybook, Ch 9	HW 08: Monster Game Part 1 *due Sunday of week 11*
12	Review and Final Exam		
Study Days	Special Office Hours will be announced on Piazza		
Finals	**Final exam** exact time will be announced on Piazza		

Statement on Academic Conduct and Support Systems

Academic Conduct
Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, "Behavior Violating University Standards" https://policy.usc.edu/scampus-part-b/. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Support Systems
Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. https://engemannshc.usc.edu/counseling/

National Suicide Prevention Lifeline - 1-800-273-8255
Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. http://www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.
https://engemannshc.usc.edu/rsvp/

Sexual Assault Resource Center
For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: http://sarc.usc.edu/

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086
Works with faculty, staff, visitors, applicants, and students around issues of protected class.
https://equity.usc.edu/

Bias Assessment Response and Support
Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. https://studentaffairs.usc.edu/bias-assessment-response-support/

The Office of Disability Services and Programs
Provides certification for students with disabilities and helps arrange relevant accommodations. http://dsp.usc.edu

Student Support and Advocacy – (213) 821-4710
Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. https://studentaffairs.usc.edu/ssa/

Diversity at USC
Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. https://diversity.usc.edu/

USC Emergency Information
Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, http://emergency.usc.edu

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.
Provides overall safety to USC community. http://dps.usc.edu