

# **Introduction to Java Programming**

ITP 109 (2 Units) Fall 2018

| 0 0                     |   |                      |                           |  |
|-------------------------|---|----------------------|---------------------------|--|
| Catalogue               | Learn the fundamental principles of programming and object-oriented software  |                      |                           |  |
| Description             | design using Java in order to solve real-wo   | orld problems.       |                           |  |
| Objective               | This course is intended to teach the basics of programming, the foundations of  |                      |                           |  |
|                         | object-oriented programming, and the process of building a project in a modular   |                      |                           |  |
|                         | fashion using the Java programming langu  | uage.                |                           |  |
| Prerequisites           | None. This class is intended for non-progr  | ammers.              |                           |  |
| Instructor              | Kendra Walther ( <u>kwalther@usc.edu</u> ) OHE 530 E  |                      |                           |  |
| Office Hours            | Listed on Blackboard under Contacts.  |                      |                           |  |
| Lab Assistants          | Listed on Blackboard under Contacts.  |                      |                           |  |
| Course Hours            | MW 10:00-11:20am  |                      |                           |  |
| <b>Course Structure</b> | The class meets for one hour and 20 minu  | ites twice a week fo | or a total of 2 hours and |  |
|                         | 40 minutes. These sessions include lectures and hands-on graded labs. Three exams   |                      |                           |  |
|                         | are given during the semester and held during the class meetings. Weekly  |                      |                           |  |
|                         | assignments and a final project are completed outside of class time. The textbook   |                      |                           |  |
|                         | includes on-line activities that are part of the final grade. Access to a laptop  |                      |                           |  |
|                         | computer during lecture and lab is required. ITP does have a laptop loaner policy   |                      |                           |  |
|                         | for students enrolled who do not have a personal laptop. All course material is   |                      |                           |  |
|                         | available on Blackboard at <a href="http://blackboard.usc.edu">http://blackboard.usc.edu</a> .  |                      |                           |  |
| Required Textbook       | zyBooks at <a href="http://zybooks.zyante.com">http://zybooks.zyante.com</a> . Sig  | gn up and enter cod  | de USCITP109Fall2018.     |  |
|                         | Cost is \$77. This book is required.  |                      |                           |  |
| Grading                 | The following percentage breakdown is used to determine the final grade.  |                      |                           |  |
|                         | Class Participation Labs  | 10%<br>5%            |                           |  |
|                         | Book Activities   | 10%                  |                           |  |
|                         | Assignments (weighted proportionally)   | 25%                  |                           |  |
|                         | Exam #1   | 10%                  |                           |  |
|                         | Exam #2   | 15%                  |                           |  |
|                         | Exam #3   | 15%                  |                           |  |
|                         | Final Project   | 10%                  |                           |  |
|                         | TOTAL POSSIBLE  | 100%                 |                           |  |
| Grading Scale           | The following scale is used to determine t  | he letter grade:     |                           |  |
|                         | 93% and above A   | 77 - 79%             | C+                        |  |
|                         | 90 - 92% A-   | 73 - 76%             | С                         |  |
|                         | 87 - 89% B+   | 70 - 72%             | C-                        |  |
|                         | 83 - 86% B  | 69 – 65              | D                         |  |
|                         | 80 - 82% B-   | 64 and below         | F                         |  |
|                         | 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. Final grade percentages are calculated to two |                      |                           |  |
|                         |   |                      |                           |  |
|                         | decimal places and rounded to hundredth   | ıs.                  |                           |  |
|                         |   |                      |                           |  |

#### Homework

The assignments will be posted on Blackboard under the "Assignments" section. Each assignment will include instructions, a due date, and a link for electronic submission. Assignments must be submitted using this link. All assignments will be digitally submitted through Blackboard except where specifically specified. Do not email them to the lecturer or lab assistant.

It is your 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 you will receive a 0.** It is the responsibility of the student to contact the grader when posting late projects. Each student will be allowed **ONE** 24 hour late assignment for "free", which may not be used on final project, and you must indicate that you are using your free late in the Blackboard comments when you submit the assignment.

You are required to keep a copy of all of your assignments. You may save your assignments using a USB flash drive or a website such as <a href="http://www.dropbox.com">http://www.dropbox.com</a>. ITP is not responsible for any work lost.

#### **Policies**

No make-up exams (except for documented medical or family emergencies) will be offered. Final projects must be submitted on or before the due date; late projects will not be accepted (except for documented medical or family emergencies)

Attendance may be taken during lecture sessions electronically, verbally, or via a roster passed around the room. Attendance in class is part of class participation, and any student missing class should post a note on Piazza, including date missing class, reason for missing class, and class section. Student is responsible for completing any required class work.

Do not reproduce, distribute, or post any lecture material, assignments, or exams publicly without my written consent. You may take notes and make copies of course materials for your own use. You may not post course materials on any websites (including but not limited to, CourseHero). Doing so is a copyright violation and 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 <a href="https://itp.usc.edu/current-students/open-lab-schedule/">https://itp.usc.edu/current-students/open-lab-schedule/</a>. In addition, ITP has a laptop loaner program for students who may need temporary use of a laptop in order to complete an assignment. ITP reserves the right to record classroom spaces and to use recorded material if necessary for academic integrity cases.

## Adding the course after week 1

Per university policy, students are allowed to add the course until the end of week 3. 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 a plan for completion of work and learning missed materials. All 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" <a href="https://policy.usc.edu/scampus-part-b/">https://policy.usc.edu/scampus-part-b/</a>. Other forms of academic dishonesty are equally unacceptable. See additional information in **SCampus** and university policies on scientific misconduct, <a href="http://policy.usc.edu/scientific-misconduct">http://policy.usc.edu/scientific-misconduct</a>. Academic integrity tutorials can be found at <a href="https://libraries.usc.edu/research/reference-tutorials">https://libraries.usc.edu/research/reference-tutorials</a>

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 project, homework or other assignment.
- Fabrication: Submitting material for lab assignments, class projects or other assignments which is wholly or partially falsified, invented or otherwise does not represent work accomplished or undertaken by the student.

Assignments and projects in introductory computer programming course are different from those in some other types of courses. Students **may NOT collaborate**, work together, share code, or in any way exchange solutions for assignments and projects. All assignments are analyzed by software that looks for similarity. Any sharing of ideas or code will be considered a violation of academic integrity (cheating); an SJACS report will be filed with the recommended penalty of an F in the course. Do not share your code with anyone else in this or a future section of the course, as allowing someone else to copy your code carries the same penalty as copying the code yourself.

If the instructor, a grader, or a lab assistant **suspects** you of academic dishonesty, it will be reported to SJACS (<a href="https://sjacs.usc.edu">https://sjacs.usc.edu</a>). Do not share assignments with 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.

#### **Disability Services**

The Office of Disability Services and Programs, information at <a href="http://dsp.usc.edu">http://dsp.usc.edu</a> provides certification for students with disabilities and helps arrange the relevant accommodations. Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP.

Please be sure the letter is delivered to your course instructor as early in the semester as possible. If you need accommodations for an exam, the form needs to be given to the instructor at least two weeks before the exam, but preferably at the beginning the semester.

# **Emergency Preparedness**

If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information*, information at <a href="http://emergency.usc.edu/">http://emergency.usc.edu/</a>, will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

#### **Support Systems**

Discrimination, sexual assault, and harassment are not tolerated by the university.

**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. <a href="https://engemannshc.usc.edu/rsvp/">https://engemannshc.usc.edu/rsvp/</a>

#### **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: <a href="http://sarc.usc.edu/">http://sarc.usc.edu/</a>

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. <a href="https://studentaffairs.usc.edu/bias-assessment-response-support/">https://studentaffairs.usc.edu/bias-assessment-response-support/</a>

#### 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/

### Support Systems,

### **Diversity at USC**

#### Continued

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. <a href="https://diversity.usc.edu/">https://diversity.usc.edu/</a>

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**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. <a href="http://dps.usc.edu">http://dps.usc.edu</a>

| 1      | Course overview. Introduction to programming.  introduction to computers, problem | Zybook Reading (Participation Activities due at the end of each week) Chapter 1 (Introduction) | Assignment             |
|--------|---|--|------------------------|
|        | programming.  introduction to computers, problem                                  | Chapter 1 (Introduction)   | 104/0 1 1 25           |
| 2      |   |  | HW0: Install BlueJ     |
| 2      | solving, and programming  |  | HW1: Intro program     |
|        | Programming in the Small. Variables. Scanner.                                     | Chapter 2 (Programming Basics)   | HW2: Simple input &    |
|        | Data Types  |  | output                 |
| 3      | Labor Day (No Monday Class)   | Chapter 3 (Data Types)   |                        |
|        | Methods   |  |                        |
| 4      | Class Design.   | Chapter 4 (Using Classes)  | HW3: Methods           |
|        | String & Random.  |  |                        |
| 5      | Exam #1 (Ch 1-4) Method design. Accessors. Mutators.                              | Chapter 5 (Classes and Methods)  | Exam Review            |
| 6      | Constructors.   | Chapter 6 (Constructors and  | HW4: Design a class    |
|        | Guest Lecture or Open Lab   | Reference Types)   |                        |
| 7      | Conditionals and Switches   | Chapter 7 (Branches)   | HW5: Conditionals      |
|        | Boolean Logic   |  |                        |
| 8      | While, do-while and for loops.  | Chapter 8 (Loops)  | HW6: Loops             |
|        | Looping Activities  |  |                        |
| 9      | Review  | Chapter 9 (Review and Examples).   | Exam Review            |
| 10     | Exam #2 (Ch 1-9)  | Deadline for challenge activities  |                        |
| 10     | ArrayList   | Chapter 10 (ArrayList)   | HW7: ArrayList         |
|        | ArrayList; hands-on learning lab  |  | 11VV7. AllayList       |
| 11     | Arrays  | Chapter 11 (Arrays)  |                        |
|        | Arrays; hands-on learning lab   |  | HW8: Arrays            |
| 12     | Classes, Methods, Inheritance   | Chapter 12 (Inheritance)   | HW9: Using inheritance |
|        | Inheritance; hands-on learning lab  |  | Exam Review            |
| 13     | Review Chapters 1 – 12. Deadline  |  |                        |
|        | Exam #3 (Ch 1-12)   | for challenge activities.  |                        |
| 14     | Open Lab  |  | Final Project Assigned |
|        | Thanksgiving Break (No Wed class)   |  |                        |
| 15     | Polymorphism, Abstract classes & interfaces                                       | Chapter 13 (Abstract & Interfaces)   |                        |
|        | Interfaces; hands-on learning lab   |  |                        |
| Finals | Special Office Hours for Study Days will<br>Final Project due Saturday December 8 |  |                        |

<sup>\*</sup> This course outline is for planning purposes and is subject to change.