CSC 121/121A: Introduction to Computer Science and Programming I

Computer Science Department

California State University, Dominguez

Hills

Instructor	Juan Leon	Lecture Delivery Method	In Person
Email	Jleon98@csudh.edu	Lecture Time	T Th 1:00 pm – 2:15 pm
Phone	3102432450	Lecture Location	SAC 2102
Office Hours	Tuesday 4 pm - 5 pm	Prerequisites	CSC 115 or consent of instructor
Office Location	NSM A-141	Unit	4

Course Text

Starting Out with Java: From Control Structures through Objects (6th Edition)Author: Tony Gaddis, Publisher: Pearson (March 22, 2015)ISBN-10: 0133957055ISBN-13: 978-0133957051

Course Description

The principal concepts of computational models and computational problem solving in a specific computer programming language will be discussed. Students will be provided with a thorough conceptual grounding in computational problem solving techniques and strategies, including sequential structure, decisive structure, iterative structure, file processing, top-down decomposition, concept hierarchy, and the object-oriented paradigm. The basic data structures for computational problem solving such as Arrays and ArrayLists and algorithms such as search and sorting will be described, developed, and analyzed. In addition, the course will also cover the organization of sequential digital machines, communications devices, function of operating systems, editors, peripheral control units, etc. that support the implementation of computational problem solvers.

Two and one half hours of lecture and two and one half hours of activity per week will be offered.

Student Learning Outcomes

After successful completion of course requirements, by the end of this course, the students should:

- have a basic understanding of computer hardware, software, I/O devices, operating systems, and the Java Virtual Machine (JVM);
- fully understand a Java program structure and be able to edit, run a Java program, and use an Integrated Development Environment (IDE);
- be familiar with data representation and manipulation inside computers and understand constants, variables, and different data types;
- fully understand the three control structures: sequence, decision, and iteration in Java methods development;
- be capable of using various decisive and iterative statements to write Java methods;
- master the software development process step by step, especially problem analysis and program design;
- master basic data structures arrays and ArrayLists as well as their operations;
- be able to design and implement sort and search algorithms to solve problems;
- Have a basic understanding of file input and output;

• Have a basic understanding of objects and classes and the Java program structure with multiple classes.

Score Distribution and Course Requirements (subject to change):

Quizzes: 10%, Assignments: 10%, Projects: 10%, Midterm Exams: 20%, Final exam: 50%

- Quizzes (10 quizzes in total, 1% for each, 10% in total): TEN in-class pop quizzes will be randomly given at the beginning or ending of classes. Pop quizzes will be very short and simple, and each usually takes 3 to 5 minutes to write. The pop quizzes will be graded as half for participation and half for question answering. You are encouraged to do all exercises of each chapter as your assignments, although they may not be collected or graded. The quiz questions may or may not be from these exercises.
- Assignments (5 assignments in total, 2% for each, 10% in total): Five individual writing assignments will be assigned regularly during the semester. These assignments (homework) will focus on understanding concepts.
- **Projects (5 programming projects in total, 2% for each, 10% in total)**: Five individual programming projects will be scheduled throughout the semester. You can work on these projects anytime and anywhere, unless otherwise instructed. Discussion with other students and the instructor is encouraged, but copying from others' work will not be acceptable.
- Midterm Exams (2 Midterm Exams in total, 10% for each, 20% in total): Midterm Exams will cover information contained in the textbook as well as information presented in lecture.
- Final Exam (1 Final Exam, 50% in total): The final exam is cumulative, and will be held according to the university final exam schedule. Each student is required to score at least 65% in the final exam to pass the course, namely if a student fails to score at least 65% in the final exam, they will directly fail this course no matter how high they score in the other components of this course. If a student scores at least 65% in the final exam, then their final overall grade will be calculated based on the score distribution mentioned above and the grading scale table shown below.
- All assignments and quizzes are to be done on Blackboard. No exceptions. To use the site with a Windows PC, you must be on a Windows 7 or higher computer running Google Chrome or Mozilla Firefox.
- No late homework/projects are accepted. You are expected to submit assignments by the deadlines. The deadline for homework/projects is 11:59:00 p.m. Pacific Standard/Daylight Time exactly.
- Missed exams cannot be made up.
- Attendance is optional.
- Extra credit may be available if deemed appropriate by the Instructor.
- Regrade requests for all assignments/projects must be made one calendar week from the date when the grade is posted.

NOTE: *If you are no longer participating in the class it is your responsibility to drop or withdraw yourself from the course. It is not the Instructor's responsibility to drop students who are no longer participating in the class*

Grading Scale

Score Range	Grade	Score Range	Grade	Score Range	Grade
≥ 96	А	[90, 96)	A-	[87, 90)	B+
[83, 87)	В	[80, 83)	B-	[77, 80)	C+
[73, 77)	С	[70, 73)	C-	[67, 70)	D+
[60, 67)	D	[0, 60)	F	NA	

Pair-programming

This course will be based on pair-programming, which means that two students will be paired as a study group during the class and laboratory. All laboratory assignments will be pair-programming projects.

Study Advice

- **Practice, practice, and practice.** Since programming/coding is a skill, like all other kinds of skills such as swimming, skating, skiing, practice is the most important approach to improve and enhance the mastery of skills. Learning by doing also means practice.
- Team learning helps students learn from each other. Peer or peer led discussions clarify your understanding about the basic concepts and problem solving approaches.
- Be prepared when you come to the classroom or lab room. Preview and post-review the materials the instructor provides.
- Complete all assignments: reading and programming, homework and projects. Check your work with sample solutions posted by the instructor to find your strengths and weaknesses.
- Don't be shy. Communicate with the instructor in a timely manner. Keep in mind that the instructor is always ready to help you.

Required Computer Software/Hardware Capabilities

A computer with various software installed, such as Chrome, Java environment, Eclipse or other Java IDEs, PowerPoint reader, Word reader and PDF reader, will be required. Students can also choose to use their own computers and install required software. If students have any problem with installing software, please contact the university IT department (https://www.csudh.edu/it/).

Computer:

You must have access to a reliable computer for this course. If you do not have a laptop/desktop, you can check out a laptop from the IT User Services Help Desk via <u>Technology Checkout Program</u>.

Visit the <u>CSUDH Academic Technology Online Courses Technical Requirements</u> page for more information on technology requirements.

Email:

All email communications from this course will go through your Toromail. Toromail is the CSUDH student email system.

Internet:

You must have Internet access to participate in this course.

Office 365:

Active CSUDH students have access to Office 365 (Word, Excel, PowerPoint) for personal desktop and laptop computers at no cost.

Computer Literacy Skills Expectations

It is expected that students will

- Use Microsoft Word for word processing unless otherwise approved by the instructor,
- Be familiar with using email as a communication tool and check your official campus email at least every other day;
- Be able to access websites and online course materials which may require Flash and other plug-ins;
- Use library databases to find articles, journals, books, databases and other materials;
- Be able to create an effective PowerPoint presentation;
- Be able to record audio (ideally video) to share with the instructor via the web; and
- Have regular access to a computer and internet access for the term of this course.

Student / Instructor Communication

Here are some important email communication tips:

- I will generally respond to messages sent to me within 24 hours.
- Ask the Instructor Please use the discussion board forum, within this course, to post questions regarding coursework and if you happen to have the answer, feel free to provide it to your fellow students. While I will post responses as well, this forum is primarily for student-to-student communications.

Blackboard Learn

You may access the course through Blackboard Learn <u>https://toro.csudh.edu</u>. You have the flexibility in an online course to study and participate according to your work and personal schedule within each week of study. However, you must still complete assignments by their required due dates.

Your challenge is to dedicate the required time for study within your personal schedule. This syllabus, including the schedule and due dates, should support you in managing time effectively. Marking your study and your online discussion time in your personal calendar also will help.

As part of your personal schedule, make sure you check the Announcements section several times a week so that you can see if I have posted any new information about the course.

LockDown Browser

Tests in this course will use the Respondus LockDown Browser. This is a specialized web browser which temporarily blocks access to other applications on your computer while you take a Lockdown Browser required test on Blackboard. Tests using LockDown Browser will include the text, "requires LockDown Browser."

Click here to download Respondus LockDown Browser for Mac and Windows.

<u>View this short video</u> for a general overview of LockDown Browser. <u>Watch this video</u> to view the install and LockDown Browser test taking process.

Note: The webcam feature in LockDown Browser, known as Respondus Monitor, will be used.

Zoom

This course will use Zoom web conferencing software for online meetings/office hours/online lectures. Go to the <u>Zoom</u> download page to download and install the Zoom Client for Meetings on your desktop or laptop. Zoom is also available for mobile and tablet devices on the <u>App Store</u> (iOS) and <u>Google Play</u> (Android). Visit the <u>CSUDH Academic</u>

<u>Technology Tutorials page</u> for information on using Zoom. <u>View this short video</u> for a general overview of Zoom.

Academic Integrity

Academic integrity is of central importance in this and every other course at CSUDH. You are obliged to consult the appropriate sections of the University Catalog and obey all rules and regulations imposed by the University relevant to its lawful missions, processes, and functions. <u>All work turned in by a student for a grade must be the students' own work</u>. Plagiarism and cheating (e.g. stealing or copying the work of others and turning it in as your own) will not be tolerated, and will be dealt with according to University policy. The consequences for being caught plagiarizing or cheating range from a minimum of a zero grade for the work you plagiarized or cheated on, to being dropped from the course. Visit the <u>CSUDH</u> <u>Academic Integrity page</u> for more information.

Technical Help

If you need technical help, refer to the following resources:

Login Issues:

For login issues related to Blackboard, Toromail and MyCSUDH, contact the <u>IT Help Desk</u> at (310) 243-2500, option 1. You can also create an <u>online service ticket</u> for login support.

Password Resets:

CSUDH offers an easy, self-service <u>password reset service</u> at <u>https://password.csudh.edu/</u>. For additional assistance with password resets, contact the <u>IT Help Desk</u>.

Blackboard Issues:

For issues or questions with Blackboard, contact the CSUDH Blackboard Support line at (310) 243-2500, option 2. You can also create an <u>online service ticket</u> for Blackboard support.

Need Help with Using Blackboard?

If you are new to Blackboard or unfamiliar with a specific feature of Blackboard, <u>CSUDH Academic Technology</u> offers a series of PDF and video-based tutorials. Visit the <u>CSUDH Academic Technology Tutorials page</u> for more information.

Americans with Disabilities Act

CSUDH adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with temporary and permanent disabilities. If you have a disability that may adversely affect your work in this class, I encourage you to register with the Student Disability Resource Center (SdRC) and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the SdRC. For information call (310) 243-3660 or to use the Telecommunications Device for the Deaf, call (310) 243-2028 or go to:

https://www.csudh.edu/sdrc/

Online courses are required to meet ADA accessibility guidelines. This means that all aspects of the online

learning experience are accessible. Please let me know if you have adaptive software and hardware to assist you with taking this course or if you have any specific needs I should be aware of. The <u>CSUDH Student Disability</u> <u>Resource Center</u> (SdRC) is available to assist you during this course. The SdRC is available at (310) 243-3660 and can be reached by email at <u>dss@csudh.edu</u>.

Behavioral Standards

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. The instructor may require a student responsible for disruptive behavior to leave class pending discussion and resolution of the problem and may also report a disruptive student to the Student Affairs Office (WH A-410, 310-243-3784) for disciplinary action.

Resources for Students in Need

Students occasionally have financial difficulties. There are a number of resources on campus that may be available to you if you find yourself in need of food, shelter, or other help. Food pantries are located in LSU 121 and SCC 148. You can find these and other resources through the Toro Food Pantry on ToroLink and here: https://torolink.csudh.edu/organization/torofoodpantry

Tentative Course Outline and Schedule (subject to change):

We will do our best to adhere to the following schedule. If any changes are necessary, you will be notified in class and by email. You are always expected and encouraged to read the appropriate chapters/sections of the text before coming to class.

Week	Chapter/Topic	Assignments/Projects
1	Chapter 1: Intro. to Computers and Java	
2	Chapter 2: Java Fundamentals	HW1 PP1-1st Java Program
3-4	Chapter 3: Decision Structures	HW2 PP2-Decision Program
5 - 6	Chapter 4: Loops and Files	HW3 PP3-Iterative Program
7	Review and Midterm Exam 1	
8 – 9	Chapter 5: Methods	HW4 PP4-Methods
9 – 10	Chapter 6: A First Look at Classes	
11	Review and Midterm Exam 2	
12 – 14	Chapter 7: Arrays and ArrayList Class	HW5 PP5-Search and Sort
14 – 15	Chapter 16: Recursion	
16	Final Exam	