Programming I

CSC 216 – Wesleyan College

Syllabus

Summer 2024, June 24 - July 26

Professor Contact Information

Professor: TBA

Office Hours: by appointment

Contact Information: TBA

Text/ISBN: *Introduction to Java Programming and Data Structures*, Liang, 11th Edition, ISBN: 9780134670942

Policies and Procedures

Course Goals
Introduction to fundamental concepts of object oriented programming including class design, simple data types, arithmetic and logic operators, repetition structures, arrays and object data structures, problem solving, algorithm design, procedural abstractions and software design, modular programming, debugging, testing, and documentation.

Prerequisite
MAT 130 or equivalent

Credit Hours
3

Course Objectives
These objectives are directed toward the following general education expected outcomes of the college:
● **Analytical and Critical-Thinking Skills:** Students should be able to reason and think analytically in solving problems and making decisions.
● **Mathematical Skills:** Students should be able to understand and apply fundamental mathematical concepts in solving problems.
● **Communication Skills:** Students should be able to read and listen with understanding and to communicate clearly and effectively in writing and speaking.
● **Information Technology Skills:** Students should be able to appropriately use computer software in solving various problems and accomplishing various tasks.

Hardware/Software

A computer is required in this class.

The software needed for this course is Eclipse. It is free and can be downloaded at https://www.eclipse.org/.

Participation and Grading

Your grade in this course will be determined by your performance in the following categories:

Assignments	Percentage
Projects	50%
Quizzes/Exams	30%
Homework	10%
Participation	10%
Total	**100%**

Grading Scale:

The grading scale in the class will be as follows:

A=90-100%
B=80-89%
C=70-79%
D=60-69%
F=59% And Below

Academic Integrity

Wesleyan's College expects student to show integrity in all of their work. Cheating, plagiarism, unauthorized collaboration, inventing or falsifying information, turning in work for more than one class without authorization, or helping someone else are all violations of the Honor Code and are not tolerated. Any of these forms of cheating will not be tolerated and will be grounds for a grade of zero on the exam or assignment and a grade of F for the course, in addition to any penalties imposed by the Provost.

Potential Changes to Course Schedule

The following week-to-week schedule is a general plan for the course. Deviations may be necessary and will be announced in advance via announcement and/or e-mail. Students should check their course site announcements and emails at least once every twenty-four hours throughout the term to watch for updates regarding this course.

Course Schedule

Week 1
Computer basics and programming languages

Flow chart, pseudocode develop, compile and execute Java programs
Java basics: identifiers, data types, arithmetic operators
Evaluate Java expressions, Scanner and Math classes

Week 2

Conditional operators and selections
Generating random numbers and more selections
Introduction to mathematical functions
Characters, Strings and String class

Week 3

More on String operations and console input and output
The need of loops and for loop
While and do while loops
Review of chapters 1, 2, 3, 4, and 5 and exercises

Week 4

Defining and calling a method
Passing parameters to a method and method returning a value
Introduction of arrays and single-dimensional array
Passing arrays to methods, method returning an array, Arrays class, arrays comparison, sorting and searching

Week 5

Multidimensional Arrays
Defining classes and creating objects using constructors
Array of objects and passing objects to methods
Java library classes, immutable Objects and classes

Civility in the Academic Community

Students, faculty, and staff are expected to treat one another with respect in all interactions. In the classroom, rude, disruptive and/or disrespectful behaviors as determined by a faculty member interfere with other students' rights and with the instructor's ability to teach. Therefore, any student exhibiting unacceptable behaviors during a class will be asked to leave and will be counted absent for that class period. Failure to cooperate with this process will result in disciplinary action that may include withdrawal from the class or dismissal from the College. Violations will be reported to the Provost's Office.

Disabilities Statement

Wesleyan College is committed to equal education, full participation and access to facilities for all students. Any student who requires reasonable academic accommodations, use of auxiliary aids or facility access for a class must first register with Disability Resources by contacting Jill Amos, Director of Disability and Advocacy Services, jamos@wesleyancollege.edu or (478) 757-5219. If reasonable accommodations are established, students should

request Accommodation Letters from Disability Resources then schedule an appointment to meet with the professor to determine how the accommodations will be implemented for each class as early in the semester as possible. Accommodations require advance notice to implement and will not be retroactively administered for the semester. Accommodations that decrease the integrity of a course will not be approved.