

CSCI-207 and Lab: 2019SP
Introduction to Object Oriented Programming (OOP)
Department of Mathematics & Computer Science
School of Natural Sciences & Mathematics

Instructor	Karina Liles	Office	JST 330
Phone	803-535-5018	Email*	kliles@claflin.edu
Office Hours	11:00am – 3:00pm Th by appointment https://drkliles.youcanbook.me/	Class Time	Th 9:30 - 10:45am M 1:00 - 1:50pm LAB W 1:00 - 1:50pm LAB
Website	http://www.drkliles.com/	Class/Lab Location	JST 131/JST 109

***All email subjects must begin with the course code then the topic of the email (i.e., CSCI 207: Homework question)**

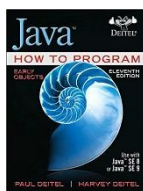
Course Description

This course is designed to teach students about Object-Oriented Programming (OOP) and its methodologies. Topics include: classes and objects, encapsulation, inheritance, polymorphism, overloading and overriding, and basic abstract data types.

Prerequisite: A grade of “C” or better in CSCI 206.

Required Course for CS and CE majors

Textbook: Java How to Program
 11th Edition, 2018
 Deitel & Deitel
 ISBN10:0134800273
 ISBN13: 9780134800271
 Item ID: PGM1793170



Additional required material(s): 1 subject spiral notebook

Course Outcomes

Upon completion of this course students shall be able to demonstrate expertise in the following:

- CO1: Develop structured, modular algorithms implemented in object oriented language.
- CO2: Implement correct programs in an object-oriented language.
- CO3: Use and implement Inheritance concept in object-oriented programming.
- CO4: Use and implement Polymorphism concept in object-oriented programming.
- CO5: Analyze the time complexity of simple algorithms implemented in object oriented language.

Where appropriate real world problems will be used. Homework and lab assignments will be carefully chosen to teach the concepts in an understandable and practicable manner and are designed to provide hands-on experience where students can practice software programming using an Integrated Development Environment (IDE).

Topics Covered

- Overview of Object-Oriented Programming: Classes and Objects
- Fundamental Data Structures: Arrays and ArrayLists
- Object Oriented Programming: Inheritance
- Object Oriented Programming: Polymorphism and Interfaces
- Recursion
- Sorting and Searching

Assessment of Course Outcomes

Outcomes	Methods of Assessment
CO1: Develop structured, modular algorithms implemented in object oriented language.	homework, quizzes, tests, labs
CO2: Implement correct programs in an object-oriented language.	homework, quizzes, tests, labs
CO3: Use and implement Inheritance concept in object-oriented programming.	homework, quizzes, tests, labs
CO4: Use and implement Polymorphism concept in object-oriented programming.	homework, quizzes, tests, labs
CO5: Analyze the time complexity of simple algorithms implemented in object oriented language.	homework, quizzes, tests, labs

ABET CAC Relationship

ABET CAC Criteria & Student Outcomes http://www.abet.org/accreditation-criteria-policies-documents/			Course Outcomes				
			1	2	3	4	5
ABET CAC CRITERIA (STUDENT OUTCOMES)	a	An ability to apply knowledge of computing and mathematics appropriate to the discipline	2	1	1	1	1
	b	An ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	3	3	2	2	1
	c	An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs	-	-	-	-	-
	d	An ability to function effectively on teams to accomplish a common goal	-	-	-	-	-
	e	An understanding of professional, ethical, legal, security and social issues and responsibilities	-	-	-	-	-
	f	An ability to communicate effectively with a range of audiences	-	-	-	-	-
	g	An ability to analyze the local and global impact of computing on individuals, organizations, and society	-	-	-	-	-
	h	Recognition of the need for and an ability to engage in continuing professional development	-	-	-	-	-
	i	An ability to use current techniques, skills, and tools necessary for computing practice.	2	2	2	3	3
	j	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based	-	-	-	-	-

		systems in a way that demonstrates comprehension of the tradeoffs involved in design choices					
	k	An ability to apply design and development principles in the construction of software systems of varying complexity.	3	3	3	2	2

* 3 = major contributor, 2 = moderate contributor, 1 = minor contributor; blank if not related

Tentative Schedule

Chapter	Week
Chapters 4-6: Control Statements: Part I and II, Methods: A Deeper Look (Review)	1
Chapter 7: Arrays and ArrayLists	2-3
Chapter 3: Introduction to Classes, Objects, and Strings	4
Chapter 8: Classes and Objects: A deeper Look	5-7
Midterm Exam	
Spring Break	
Chapter 9: Object Oriented Programming: Inheritance	10
Chapter 10: Object Oriented Programming: Polymorphism and Interfaces	11
Chapter 18: Recursion	12
Chapter 19: Searching, Sorting and Big O	13-14
Final Exam	

Assessment Policy

Midterm Exam	25%	
Assignments and Quizzes	20%	
Lab Assignments	30%	Important: You must pass lab to pass the course.
Final Exam	25%	

- It your responsibility as the student to be actively engaged (i.e., being present and hearing announcements, taking notes in class, etc.)
- No late assignments will be accepted
- No makeup quizzes will be given. Some quizzes may be given unannounced

NO MAKEUP EXAMS will be given without proper excuse from the Vice President for Student Development and Services **NO EXCEPTIONS!!!**

Grading Scale

A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D+	65-69
D	60-64
F	0-59

Code of Honor Policy Statement

“Code of Honor Policy Statement

Claflin University prohibits all forms of academic or scholarly dishonesty, including written or oral examinations, term and research papers or theses, modes of creative expression, and computer-based work.

Scholarly dishonesty includes lying, cheating, plagiarism, collusion, and the falsification or misrepresentation of experimental data. (For social behavior, see Claflin University Student Handbook: Code of Conduct and Code of Ethics).

Code of Honor Definition of Violations

1. Academic Dishonesty – This includes any other act (not specifically covered in previous provisions) that compromises the integrity of a student or intrudes on, violates, or disturbs the academic environment of the University Community. Examples include attempting or agreeing to commit, or assisting or facilitating the commission of, any scholastic dishonesty, failing to appear or testify without good cause when requested by the Council for the Code of Honor, failing to keep information about cases confidential, supplying false information to the Council for the Code of Honor and accusing a student of a violation of this Code in bad faith.

2. Cheating – This act implies an intent to deceive. It includes all actions, electronic or other devices and deceptions used in the attempt to commit this act. Examples include, but are not limited to, copying answers from another student’s exam and using a cheat sheet or crib notes in an exam.

3. Collusion – This is the act of working together on an academic undertaking for which a student is individually responsible. Examples include, but are not limited to, sharing information in labs that are to be done individually.

4. Plagiarism – Plagiarism is representing the words or ideas of someone else as one’s own. Examples include, but are not limited to, failing to properly cite direct quotes, the false utilization of copyrighted material and the failure to give credit for someone else’s ideas.”

(2010-2011 Claflin University Catalog, pg. 39-40)

Assurance Statement

If you need accommodations in this class related to a disability, please make an appointment as soon as possible with the Office of Disability. Please contact **Sadie Jarvis** with disability services: 803-535-5285, sjarvis@claflin.edu, Corson Hall Room 121.

Early Alert Program

As a part of our renewed focus on engaged learning, Claflin University has enhanced and expanded its current Early Alert Program. This program is designed to assist with your success and will be given a high priority as a strategy for this class. Should the instructor determine that you might benefit from taking advantage of these support services and campus resources, you will be referred for such additional support as a means to assist with successful completion of this course. It is further expected that you will comply with the referral and take

advantage of the services offered. Please understand that such referrals are not a form of punishment, rather, they are intended to help you reach and achieve your academic and personal goal.”