LeMoyne-Owen College
Division of Natural and Mathematical Sciences
Introduction to Programming Lab, COSI 123/223L
Fall 2024

Instructor:	Valerie Chu, Ph.D.
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Office Hours:	MWF 11:00 a.m. to 1:00 p.m.
	Tues/Thurs 12:15 p.m. to 2:15 p.m.
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Credit Hours: Three
Prerequisites: none
Class Meeting: MW 8:00 a.m. to 8:50 a.m.

Syllabus

Texts: *Practical Programming, 3/E* by Paul Gries, Jennifer Campbell & Jason Montojo.
ISBN: *9781680502688*, Publisher: Pragmatic Bookshelf)

Course Description:
This is an introductory course in object-oriented programming for the student without previous programming experience. This course focuses on problem solving, modeling, algorithm design, abstraction, with emphasis on the development of working programs and fundamental concepts of programming in the object-oriented paradigm. Topics include primitive data types, control structures, arrays, I/O, objects and classes.

***Note: Please READ ALL STUDENT INSTRUCTIONAL GUIDES in Canvas LMS. All assignments are to be completed, uploaded, and submitted in Canvas**.

College Graduate Competencies:
The two college graduate competencies (CGC) that are directly addressed in Java How to Program are:
1. Think creatively, critically, logically, and analytically using both quantitative and qualitative methods for problem solving.
2. Communicate effectively (listen, speak, read, and write) on formal and informal levels;
8. Maintain levels of literacy that allow them to understand the impact of science and technology on individuals, society, and the environment.

Major Area Competency Levels:
The college graduate competencies are developed specifically for this course through major area competency levels (MAC). By the end of this course, students should have attained proficiency in the following major area competencies:
1. To demonstrate an ability to think creatively, critically, logically, and analytically using both quantitative and qualitative methods for solving problems (CGC#1).
2. To demonstrate an ability to address problems and communicate solutions clearly. (CGC#2).
3. To control a computer through the process of programming which will include defining the problem, planning the solution, coding the program, and testing the program (CGC#8).

Course Objectives:
The identified major area competencies focus on how students enhance their logical understanding and critical comprehension of Programming. Therefore, students are expected to show proficiency in the following:
1. To recognize the writing style of object-oriented programming.
2. To explain clearly to other students the relationships between class and object.
3. To discuss with a group of students about when, where and how to use static fields or instance fields.
4. To create a computer program and apply that program to real-life problems.
5. To write clearly in English about the purpose of every method in a computer program.
6. To understand the difference between syntax error and logic error.

Attendance Policy: In accordance with college policy, classroom attendance is required. The following standard will be applied:

1. If unexcused absences total 15% of the regularly scheduled class meetings, the instructor has the authority to lower the final grade by one letter.
2. If unexcused absences total 20% of the regularly scheduled class meetings, the instructor has the authority to give a failing grade.
3. Five classes tardy —arrival to class five minutes after class has begun—will equal one unexcused absence.
4. Students must attend at least 90% of class the session to be considered present.

Technology Use: LeMoyne-Owen College is committed to enhancing student learning through the use of a variety of applicable technology. In this course, students will attend class via Microsoft Teams and be exposed to Java Compiler and Interpreter.

Demeanor: Suitable demeanor, posture and attire are required. For guidelines and the dress code, please refer to the 2011/2012 Student Handbook (8-9; 13).

Classroom Policies and Procedures:

The classroom learning experience provides opportunities for faculty and students to engage in interactive exchanges of course content. To facilitate this exchange, the following guidelines are provided:

1. Because each class session covers vital material and information, it is important that students arrive on time to each class session.
2. In order to enhance students' performance and confidence in acquiring the material, it is critical that students come to each class session prepared. This includes bringing to class required texts, supplemental materials, and assigned work, which is provided on the course outline.
3. In order to limit unnecessary distractions which would deter learning, cell phones, multi-media devices, and laptops are required to be used for class purposes only. Silence all other devices.

Faculty reserve the right to apply penalties for noncompliance to either or all of the above guidelines.

Assignments, Assessment and Submission Requirements:

Several quizzes, two mid-term tests and a final comprehensive examination will be given. There are **no make-up tests** except for a valid document from a doctor; however, a note from home is not acceptable.

Programming or written assignments will be assigned frequently. It has to be sent through the e-mail by the deadline (noon of the due day). **Late assignments will receive the following penalties**: 1 day late, minus 10 points; 2 days late, minus 20 points; 3 days late, minus 30 points; …and so on until zero credit. Students are responsible to check a return e-mail for assignment credits. If a student has turned in assignments and there is no response from the instructor, the student has to contact the instructor directly; otherwise, the student would get a zero credit for the assignment. **Duplication of programming or written assignments will not be permitted. Duplicated programming assignments as well as the original will be assigned a grade of "F".**

Policies Related to Students with Disabilities:

If you need course adaptations or accommodations because of a disability, if you have emergency medical information to share, or if you need special arrangements in case the building must be evacuated, please make an appointment with Jean Saulsberry, Director of Student Development, as soon as possible at (901) 435-1727. The Student Development Office is located in the Alma C. Hanson Student Center, Room 208.
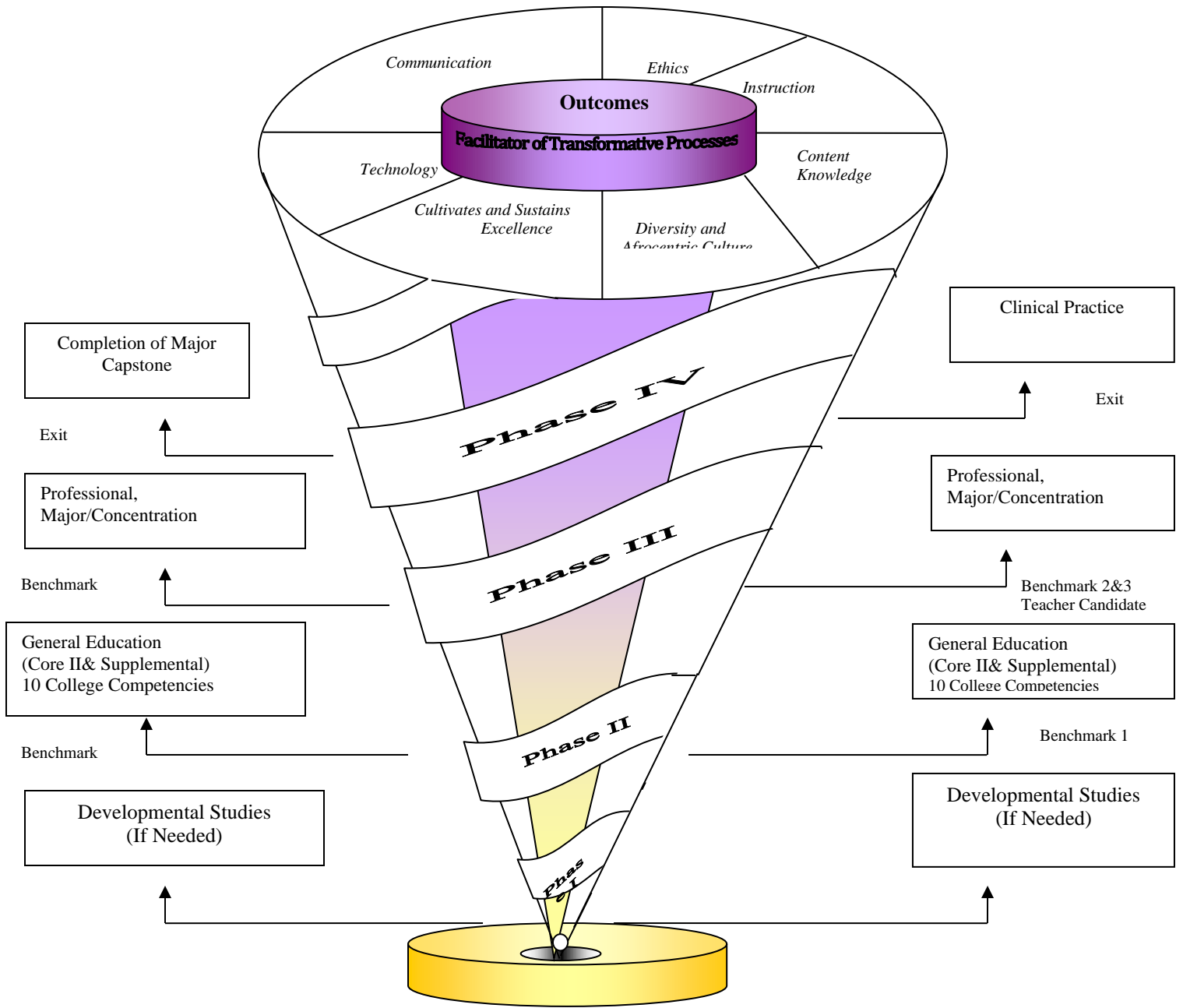
Student Performance Evaluation and Grading Scale:

The course grade will be calculated on the following distribution:		Grades will be recorded in numerical form until the final averages are determined at the end of the semester. *Grading Scale* will be	
Assignments	20%	90 to 100	A,
Quizzes	20%	80 to 89	B,
Mid-term Tests	40%	70 to 79	C,
Final Comprehensive Exam	20%	60 to 69	D,
The final exam score can replace the lowest midterm test if student wish to.		others	F.

LeMoyne-Owen College Graduate Competencies (CGC)

LeMoyne-Owen College graduates should be able to:

1. Think creatively, critically, logically, and analytically using both quantitative and qualitative methods for problem solving;
2. Communicate effectively (listen, speak, read, and write) on formal and informal levels;
3. Distinguish, clarify, and refine personal values for the attainment of richer self-perception and relate those values to the value system of others;
4. Appreciate, understand, and know the foundations of the Afrocentric perspective;
5. Appreciate, understand, and know the foundations of diverse cultures in the context of a global community;
6. Appreciate, understand, now and pursue the principles, methods and subject matter that underlie the major discipline(s);
7. Accept social responsibility and provide service to humankind;
8. Maintain levels of literacy that allow them to understand the impact of science and technology on individuals, society, and the environment;
9. Attain motivational, personal management, interpersonal skills, professional development and research experience, as well as resourcefulness that will form the basis for a career and/or further educational experiences;
10. Attain critical skills, frame of reference, and understanding needed to appreciate and discriminate between artistic achievements.

Communication   Ethics   Instruction

Outcomes

Facilitator of Transformative Processes

Technology   Content
Knowledge

Cultivates and Sustains
Excellence   Diversity and
Afrocentric Culture

Phase IV

Phase III

Phase II

Phase I

Clinical Practice

Exit

Completion of Major
Capstone

Exit

Professional,
Major/Concentration

Professional,
Major/Concentration

Benchmark

Benchmark 2&3
Teacher Candidate

General Education
(Core II& Supplemental)
10 College Competencies

General Education
(Core II& Supplemental)
10 College Competencies

Benchmark

Benchmark 1

Developmental Studies
(If Needed)

Developmental Studies
(If Needed)

Student

Teacher Education Pre-Candidate

The Conceptual Framework Model

Theme: Teacher as a Facilitator of Transformative Processes

Introduction to Programming
Course Outline (tentative)

Weeks	Chapters	Topics
1	1	What's Programming?
	2	Hello, Python
2-3	3	Designing and Using Functions
4	4	Working with Text
5-6	5	Making Choices
7	6	A Modular Approach to Program Organization
8	**Review & Mid-Term Exam**	
9	7	Using Methods
10	8	Storing Collections of Data Using Lists
11	9	Repeating Code Using Loops
12	10	Reading and Writing Files
13	**Review & Exam 2**	
14	**Review for Final Exam**	
15	**Final Comprehensive Exam**	

Instructor reserves the right to add or subtract assignments or assessments.