

Syllabus: CMP SCI 2261

Object-Oriented Programming

Department of Mathematics and Computer Science

Semester

SP/SS/FS 20xx

Instructor Details

Name: Put name

Office Hours: Put hours, 1.5 hrs/wk per course for FT faculty, 3 hours a week for adjunct

Office Location: Put location, can be in office, in class, online, etc.

Submission and Communication

Your specific policies and procedures regarding submissions, late submissions, communication means, etc.

Scoring

List any additions/changes you want to make to the course details below, such as using quizzes, attendance requirements, etc. Keep in mind you cannot change the course details, you can only work within what it says. So if you want to add quizzes and they are not listed, scoring for quizzes has to be added to homework, tests, or another part. If the course detail gives ranges for grading, you have to provide specific values within these ranges.

Incremental Grading

Provide information if used.

Schedule

If the course detail does not state detailed timing or sections/topics, you may put them here. Keep in mind you cannot remove topics and if the course is coordinated you may have to follow topic allocations.

Course Details

General Policies

We follow the university policies regarding excused EX and EX-F drops.

Students are given and are expected to sustain positive learning environment in class. This means positive conduct in class, no late walk-ins or early walk outs without a good explanation or a prior arrangement, and if on-line access is available in class - not using it for anything not class related. Students not meeting these standards may be asked to leave the classroom.

Sample tests will be provided.



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All in and out of class work for grade should be done independently. Homework can be discussed with others, but the final work (code, answer, etc.) should be independent. Programs may be discussed up to design, but no code is allowed to be shared except for what is presented in class. Help can always be sought and received. However, help to assignments should be generic on the subject matter or very narrowly focused on specific problem not being the central point in the assignment.

Course Description

Prerequisites: <u>CMP SCI 2250</u>. Introduces object-oriented concepts, terminology, and notation (UML) using Java. Covers encapsulation, classes, objects, inheritance, and the use of class libraries. Additional topics may include graphical user interfaces, applets, and related tools and technologies.

Text and Other Materials

Textbook: "Introduction to Java Programming and Data Structures, Comprehensive Version", 11th Edition, Y. Daniel Liang, Pearson, ISBN 978-0-13-467094-2

Course Schedule

WEEK	CHAPTER	TOPICS	ASSIGNMENTS
1	1, 2, 3	Introduction, IDE, Coding Standards, Selections	
2	<i>4, 5, 6</i>	Strings, Loops, Methods	
3	7, 8, 9	Arrays, Objects, Classes	
4	9, 10	Objects, Classes	
5	10	Classes	
6	-	Exam 1	<u>Exam 1</u>
7	11	Inheritance, Polymorphism	
8	11, 13	Inheritance, Polymorphism, Abstract Classes, Interfaces	
9	13	Abstract Classes, Interfaces	
10	19, 20	Generics, Collections	
11	20, 21	Collections, Sets, Maps	
12	-	Exam 2	<u>Exam 2</u>
13	14	JavaFX Basics	
14	15	Event-Driven Programming	
15	12	Exception Handling, Text IO	
16	-	Final Exam	Final Exam

Course Objectives and Learning Outcome

At the end of this course, students should be able to:

- Describe the primary features and benefits of object-oriented programming (OOP)
- Use UML diagrams to facilitate good OOP design
- Construct classes to generate desired objects



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- Create object-oriented programs that use class hierarchies and polymorphism
- Think and analyze a problem in an object-oriented manner
- Develop simple GUIs
- Know how and when to apply Java Generics and Collections
- Perform basic debugging on IDE

Course Grading

We will use the standard 10% grading scale: 90% zand above gives A, 80% and above B, 70% and above C, 60% and above D, else F. Graduate students may be required to do additional work to be incorporated into the grade scale. All grades throughout the course will be posted on Canvas.

Tests	40-50%
Projects	40-50%
Homework, quizzes, etc.	10-20%

University Policies and Information

http://www.umsl.edu/~webdev/mathematics/files/pdfs/cs_umsl_syllabus_university.pdf