

CMP 168: Programming Methods II Syllabus

Semester	Class Section	Class Hours	Room Number
Summer 2021	CMP 168	MTWTh 2:00 – 5:25PM	Zoom 202 609 9616

Instructor	Email	Office Hours	Office Number
Liang Zhao	Liang.Zhao1@lehman.cuny.edu	After class	Zoom 202 609 9616

Course Description: *4 hours, 4 credits* This course continues the study of the Java programming language. Students will learn advanced programming techniques including: object oriented programming, graphical user interface (GUI) programming, efficient sorting and searching algorithms, recursive algorithms, multi-threads, exception handling. Students are expected to complete lab exercises include designing, writing and debugging programs using commercial IDEs.

Prerequisite: A grade of B- or better in [CMP 167](#) or Departmental permission.
[CIS 166](#) may be used as a PREREQ with Department Permission.

Course Objectives:

By the end of the course students should be able to read and write java code that does the following:

- Demonstrate OOP through proper use of encapsulation, polymorphism and inheritance.
- Independently design, create, debug Java Applications
- GUI (Graphical User Interface) for desktop applications
- Perform decision branching using if-else statements, switch cases
- Perform iteration using loops for, while, do-while
- Use Recursion to solve problems
- Manipulate Arrays 1 Dimensional & 2 Dimensional
- Manipulate Strings
- Use Streams and perform File I/O
- Demonstrate use of Exception Handling
- Popular Sorting Algorithms (Bubble, Selection, Insertion, Merge)
- Popular Searching Algorithms (Sequential, Binary)

Grading Policy:

- Participation & Challenge Activities From Textbook: 10%
- Homework Problems: 15%
- Projects: 15%
- Midterm: 30%
- Final Exam: 30%

Expectations: Students are expected to learn the material covered in class, the material in the textbook and other assigned reading. Completing homework is an essential part of the learning experience. Students should review topics from prior courses as needed using old notes and books

Honor Code: You are encouraged to work together on the overall design of the programs and homework. However, for specific programs and homework assignments, all work must be your own. You are responsible for knowing and following Lehman's [academic integrity code](#) (available from the Undergraduate Bulletin, Graduate Bulletin, Office of Academic Standards and Evaluations, or the Smart Catalog).

All incidents of cheating will be reported to the Vice President of Student Affairs.

Email: We will be communicating with you on a regular basis throughout the semester using Blackboard and the email address you provide us on day 1 of this course. You must check that email address on a regular basis. **There will be no acceptable excuse for missing an email announcement.**

Homework: Programming problems are due most weeks. Problems will be in your online textbook (see below). These programming problems reinforce concepts covered in class. To receive full credit for a program, it must be completed by the specified due date and the program must perform correctly. You will be allowed to submit your solution multiple times, the submission with the highest grade will count as your grade.

Materials and Resources:

Textbook:

<https://zybooks.zyante.com/#/zybooks> zyBook code:

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Technology:

Access to personal computers with [Eclipse IDE](#), [JDK 8](#), [Java 8 Documentation](#)

Computer Access:

Part of this course will use university computer laboratories. These machines are for work related to this course only and a code of conduct applies to computer use in the department and on-campus. Misusing university computers could result in losing your computer access for the rest of the term, making it exceedingly difficult to complete this course.

Additional Online Resources:

Oracle Documentation: <https://docs.oracle.com/javase/tutorial>

Oracle JavaDoc: <https://docs.oracle.com/javase/8/docs/api>

GitHub Repository <https://github.com>

Additional Book: <http://math.hws.edu/javanotes>

Videos: [Free Java Videos](#)

Interactive Online Coding Practice:

[CodingBat code practice](#)

[Practice-It!](#)

[CodingGame](#)

[Learn Java Online](#)
[Visualize Java code execution](#)
TutorialsPoint.com/java

Accommodating Disabilities:

Lehman College is committed to providing access to all programs and curricula to all students. Students with disabilities who may require accommodations are encouraged to register with the Office of Student Disability Services located in Shuster Hall, Room 238.

<http://www.lehman.edu/student-disability-services>

Telephone: 718-960-8441 Email: disability.services@lehman.cuny.edu