



Brooklyn College.

Fall 2005

Wednesday 6:20pm – 9:00pm
Instructor: M. Q. Azhar

CIS 26 Section: EW6.

Contact:

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Title of the course: Object Oriented Programming Using Java

Recommended Texts: You are not required to buy any textbooks for my class. But I strongly recommend buying at least one most current edition book for reference. Here is my recommendation:

- ❖ Introduction to Java Programming (5th Edition) by Daniel Liang
- ❖ Object Oriented Programming with Java An Introduction by David J. Barnes.
- ❖ Java in a Nutshell by David Flanagan
- ❖ Core Java 2–Volume1 or Big Java by Cay S. Horstmann and Gary Cornell
- ❖ Core Lego Mindstorms Programming –Unleash the Power of the Java Platform by Brian Bagnall.

Web References:

- ❖ <http://java.sun.com/docs/books/tutorial/>
- ❖ <http://lejos.sourceforge.net/>

Prerequisite: CIS 22. **Not open to students** who are enrolled in or have completed CIS 2.70 or 16.

Evaluation and Requirements of Students:

HW Assignments /Attendance and Class Participation:	25%
Quizzes:	10%
Midterm:	25%
Projects:	15%
Final Exam:	25%

- ❖ The above requirements may change based on class performance.
- ❖ There is no makeup for your unexcused missed exams or quizzes.
- ❖ You will loose 10% for each day after homework is due.
- ❖ This class requires attendance and class participation.

Lab. Policy:

Students will be divided into groups of 2 or 3 students. Each group will be required to submit a report on each lab assignment. The report should be very brief and should discuss the concepts learned in the lab and includes well-commented and documented programs.

College Attendance Policy: You are expected to attend all classes. No make-ups will be given on tests or the final unless you have informed me in advance that you will miss a test, and why. (If you are ill, you may call the department office and leave a message.) Don't miss class to finish the program due that day; instead, come to class and submit the program later in the day. **You are responsible for whatever is done in class whether or not you are not there. In particular, you are responsible for all announcements made for exams and Homework assignments.** While our textbooks cover most basic concepts, class is our only source for the specifics that will allow you to learn the material – and pass the class. **Make sure you get the notes and assignments if you miss a class. You should get at least one other students phone number. ATTENDANCE AND CLASS PARTICIPATION WILL AFFECT YOUR GRADE AS WELL. TEACHER EVALUATION FOR EXCELLENT CLASS PARTICIPATION CAN RAISE YOUR AVERAGE.**



OOP using JAVA [with Robotics]: Syllabus

Readings	Lab	Lectures
1. Java Fundamentals	§ Show Java environment. § Write a Java Program using Java Fundamental § Show how to do Applet	Lecture 1
2. More Java Fundamentals	Intro Lab: Explain how does robotics fit into our course. Show Demo. Explain our goals.	Lecture 2
3. Object Oriented Programming	Sensor Lab: Introducing Sensors. Write simple loop, selection structures type exercises.	Lecture 3
4. Object Oriented Programming	Object LAB: Write Robotics program to show object design. Exercises for independent students.	Lecture 4
5. Inheritance and Polymorphism	Inheritance Lab: Robotics program to demonstrate inheritance. Exercises for independent students	Lecture 5
6. Inheritance and Polymorphism		Lecture 6
7. Midterm		
8. Wrapper Classes/ Exception/FILE IO, Arrays, Sorting and Searching	ArraySortingSearching Lab § Propose a semester end competition. § Create balanced groups. § Sample programs to start up the competition.	Lecture 7
9. Graphics	§ Graphics exercises.	Lecture 8
10. Event Driven Programming	§ Robotics exercises on EDP (TBA)	Lecture 9
11. Graphics and EDP	§ Projects	Lecture 10
12. Graphics and EDP	§ Projects	Lecture 11
13. Lab Practice for Competition		
14) Current and future trends e.g. Where do you go with this knowledge	14. Exposure to current and future trends in OOP using Java e.g. Java applets, e-commerce, JDBC, Java networking.	Lecture 12
15. Final Exam		

Note: The above is a tentative schedule. It may be changed during the semester based on overall class performance.