
CS 115
Object Oriented Programming I

Reading

1. Programming and Problem solving with Java, Nell Dale, Chip Weems, Mark H., © 2003, Jones & Bartlett Publishers Inc; ISBN 0-7637-0490-3 (Required).
2. A laboratory Course for Programming with Java, Nell Dale, © 2003, Jones & Bartlett Publishers Inc; ISBN 0-7637-2463-7 (Required).
3. Java by Dissection: The Essentials of Java Programming, Ira Pohl, Charlie McDowell, © 1999, Addison Wesley Publishing; ISBN 0-201-61248-8 (Optional).

Objectives

1. Develop, and analyze algorithms for solving simple problems and use the Java programming language to implement, test and debug those algorithms.
2. Mastery of classes, methods, fields, constructors, and overloading.
3. Familiarity with abstraction mechanisms and object-oriented programming.
4. Mastery of expressions, selectors, iterators, and functions.
5. Familiarity with programs that use each of the following data structures: string, arrays, structures, and Standard Templates Library (STL) class libraries including strings and vectors.
6. Use a development environment to design, code, test, and debug simple programs, including multi-file source projects, in an object-oriented programming language.

Concepts / Components

Hours

1. Introduction to course and Java Programming language	2
2. Overview of standard Data Structures	3
3. Arithmetic Expressions	3
4. Boolean Expressions, Logical Expressions and Selection Control	5
5. Looping and Iteration	4
6. Object-Oriented Programming	3
7. Testing and Debugging	2
8. One-Dimensional Arrays	3
9. Searching and Sorting	3
10. Inheritance, Polymorphism, and Scope	4
11. File Input / Output and Exceptions	3
12. Introduction to Recursion	3
13. Midterm Examination	2
14. Midterm and Final Exam Review	2
15. Project Overview and Description	2
16. Midterm Solution Review	1

Total Semester

45

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		CONCEPT																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
WEEK	1	2	1														3	
	2		2	1														3
	3			2	1													3
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