Document:	Object Oriented Programming (C++) Course Administration
Revised:	8-18-2000
Course Title:	Object Oriented Programming (C++)
Course Number:	COMSC 3103
Section:	Section 6213 10:00 – 10:50 a.m. MWF MCS 113
Instructor:	Dr. Thomas R. Turner; Office: MCS 123; Work Phone: 974-5383
Office Hours:	MTWRF: 11:00 – 11:50 a.m. *and* by appointment.
Text:	STROUSTRUP, BJARNE *The C++ Programming Language* 3rd Ed. Addison-Wesley 1997 ISBN: 0-201-88954-4
Prerequisites:	1. COMSC 2613, Programming II 2. MATH 2123, Discrete Mathematics 3. COMSC 1613, Programming I 4. COMSC 1513, Beginning Programming (Pascal) 5. MATH 1513, College Algebra *or* MATH 1555, College Algebra and Trigonometry
Programming Projects:	Twelve (12) programming projects are assigned. Projects are due, in class, at the beginning of the class session. No credit is given to projects that are turned in late. No excuses will be accepted for late projects. *You may turn in projects early if you know you cannot attend class on the day an assignment is due. If you cannot turn in an assignment in class put the assignment in my mailbox in the Computing Science Office, MCS 117.* ***One-quarter of the value of the project will be deducted if the project is slipped under my office door.***

Course Scoring:

Task	**Date**	**Value**
Test 1	9-25	130
Test 2	11-1	130
Final Test	12-15	260
Programming Projects	Table 2	260
Total		**780**

Grading:	**A**: 90% (702-780); **B**: 80-89% (624-701); **C**: 70-79% (546-623); **D**: 60-69% (468-545); **F**: 59% (0-467) and below.
Notice:	Beepers and cellular phones are prohibited in class.
Absences:	You ***must*** call before you are absent on the day a test is given to be excused. If you do not call you will ***not*** be permitted to take a makeup test. Lecture notes are distributed only on the day of the lecture. Your instructor does not make notes available to you if you are unable to attend class.
Tardiness:	Students who arrive after roll is called may be prohibited from entering the classroom at the instructor's discretion.
Caveat:	This lecture schedule, programming projects and due dates, number and dates of tests are all subject to change. Changes are presented in class ***You*** are responsible for the material presented in class.
Class Web Page:	The course administration and assignments can be found on URL **http://www.comsc.ucok.edu/~trt/cs3103/cs3103.html**
Course Directory	The course directory is on the campus computer. You can find test data files in the course directory. **~tt/cs3103/**
Student Disabilities:	Students with disabilities who require accommodations may contact the campus Equity Office (Thatcher Hall, Room 200, ext. 2573) to request assistance.

Table 1. Lecture Schedule

Lecture	Date	Topic	Text
1	8-21	Course administration	Lecture notes
		Program structure and makefiles	
2	8-23	Command line arguments	Lecture notes
3	8-25	Types and Declarations	Ch. 4. p 69-86
4	8-28	Types and Declarations	Ch. 4. p 69-86
5	8-30	Pointers, Arrays, and Structures	Ch. 5. p 87-106
6	9-1	Pointers, Arrays, and Structures	Ch. 5. p 87-106
		p01: C++ 'a' to 'z' due	
7	9-6	Expressions and Statements	Ch. 6. p 107-142
8	9-8	Expressions and Statements	Ch. 6. p 107-142
9	9-11	Functions	Ch. 7. p 143-164
10	9-13	Functions	Ch. 7. p 143-164
		p02: Months and days due	
11	9-15	Namespaces and Exceptions	Ch. 8. p 165-196
12	9-18	Namespaces and Exceptions	Ch. 8. p 165-196
13	9-20	Source Files and Programs	Ch. 9. p 197-220
14	9-22	Margin	
		p03: Calculator due	
15	***9-25***	***Test 1***	***Ch. 4, 5, 6, 7, 8, 9***
16	9-27	Classes	Ch. 10. p 223-260
17	9-29	Classes	Ch. 10. p 223-260
		p04: Binary tree due	
18	10-2	Classes	Ch. 10. p 223-260
19	10-4	Operator Overloading	Ch. 11. p 261-300
20	10-6	Operator Overloading	Ch. 11. p 261-300
		p05: Namespace Calculator due	
21	10-9	Operator Overloading	Ch. 11. p 261-300
22	10-11	Derived Classes	Ch. 12. p 301-326
23	10-13	Derived Classes	Ch. 12. p 301-326
		p06: Calculator Exceptions due	
24	10-16	Derived Classes	Ch. 12. p 301-326
25	10-18	Margin	
26	10-23	Templates	Ch. 13. p 327-354
		p07: Class Calculator due	
27	10-25	Templates	Ch. 13. p 327-354
28	10-27	Templates	Ch. 13. p 327-354
29	10-30	Margin	
		p08: Class String due	
30	***11-1***	***Test 2***	***Ch. 10, 11, 12, 13***
31	11-3	Exception Handling	Ch. 14. p 355-388
32	11-6	Exception Handling	Ch. 14. p 355-388
		p09: Window and Shape due	
33	11-8	Exception Handling	Ch. 14. p 355-388
34	11-10	Class Hierarchies	Ch. 15. p 389-426
35	11-13	Class Hierarchies	Ch. 15. p 389-426
		p10: String Template due	
36	11-15	Class Hierarchies	Ch. 15. p 389-426
37	11-17	Library Organization and Containers	Ch. 16. p 429-460
38	11-20	Library Organization and Containers	Ch. 16. p 429-460
		p11: Treesearch Exception due	

Table 1. Lecture Schedule (continued)

Lecture	Date	Topic	Text
39	11-27	Library Organization and Containers	Ch. 16. p 429-460
40	11-29	Standard Containers	Ch. 17. p 461-506
41	12-1	Standard Containers	Ch. 17. p 461-506
42	12-4	Standard Containers **p12: Vector due**	Ch. 17. p 461-506
43	12-6	Margin	
44	12-8	Review	Comprehensive
45	***12-15***	***Section 6213 Final Exam Friday 9:00 – 10:50 a.m.***	***Comprehensive***

Table 2. Programming Projects

Project	Due	Value	Description
1	9-1	15	**p01**: C++ 'a' to 'z', Ch. 4. #4
2	9-13	15	**p02**: Months and days, Ch. 5 #7
3	9-22	20	**p03**: Calculator, Ch. 6. #18
4	9-29	25	**p04**: Binary tree, Ch. 7. #7
5	10-6	20	**p05**: Namespace Calculator, Ch. 8 #3
6	10-13	20	**p06**: Calculator Exceptions, Ch. 8 #9
7	10-23	20	**p07**: Class Calculator, Ch. 10 #16
8	10-30	20	**p08**: Class String, Ch. 11 #2
9	11-6	35	**p09**: Window and Shape, Ch. 12 #2
10	11-13	20	**p10**: String Template, Ch. 13 #4
11	11-20	30	**p11**: Treesearch Exception, Ch. 14 #3
12	12-4	20	**p12**: Vector, Ch. 16 #7
Total		**260**	

Syllabus

Department of Computing Science
University of Central Oklahoma

COURSE DESCRIPTION

Theory and practice of object oriented programming; includes material on abstract data types, classes and objects, inheritance, polymorphism, and encapsulation techniques. Extensive practices in a specific object oriented language is included.

OBJECTIVES

1. To inform the student about the object oriented paradigm, its power and potential.
2. To give lessons on a particular object oriented language, and to provide hands on experience writing and running object oriented programs.
3. to inform the student about object oriented design and its potential for bettering the state of program design in general.

COURSE OUTLINE

1. Introduction - the nature of object oriented programming
2. Classes, objects, abstract data types
3. Overloading of functions/operators.
4. Inheritance.
5. Type hierarchies.
6. Multiple inheritance.
7. Polymorphism and virtual methods.
8. Other topics as time permits.

REQUIREMENTS

1. Tests to include a comprehensive final.
2. Programs illustrating many object oriented concepts.