Course Outline: CS 1000 3.8 (3-0-1.5) UT, Computer Programming for Engineers, Winter Semester 2002

JAN. 22 2002

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Contents, Goals & Objective: This course is intended as a first programming course for engineers. Students are expected to become familiar with basic computer concepts and terminology as well as to develop proficiency in C++ programming. By the end of the semester, students should have acquired a real appreciation (and insight) into the difficulties involved in defining instructions in a manner precise enough for the computer to execute. This course will introduce most of the fundamental language features of C++. Each student is expected to design, write, test, debug and document several well-structured programs as solutions to given assignment problems. It is also expected that each student become familiar with certain features of PCs, Windows NT as well as the Microsoft Visual C++ 6.0.

Text Books:

- *C++ How to Program third edition* by Deitel and Deitel.
- Overheads and sources used in the class are available through WebCT.

Lectures:

The lectures are given in A209 from 14:30 to 15:50 on Monday & Wednesday. All students are required to attend class on time.

Laboratories:

You will need at least two (2) 3.5" HD or DD diskettes. Scheduled labs will begin in the week of January 6, 2002. The Lab is in J131 from 14:30 to 15:50 on Tuesday. Students should finish all the labs in order to pass the course.

Last Day to Drop: Monday, March 4, 2002.

Examination Policy: All examinations except for the Final will be in class. All examinations are close-book and close-note. I will post the time and place for the final examination on WebCT. The time and place of the final will be scheduled later.

Make-Up Exam Policy: Make-up examinations will be given only in case of serious need and only when the instructor is notified prior to the examination time. Otherwise, the grade is automatically 0 for that exam. It is the responsibility of the student to contact the instructor for arranging a make-up time. Written verification for the student's inability to take an exam will be required.

Homework/Assignment Policy: All homework and assignments are due in class on the specified date. All assignments must be individually and independently completed and must represent the effort of the student turning in the assignment. Should two or more students turn in substantially the same solution or program, in the judgment of the instructor, the solution will be considered a group effort. Both or all involved in a group effort homework will receive a zero grade for that homework/assignment. A student turning in a group effort homework/assignment more than once will automatically receive an "F" grade for the course.

Assignment Pages: All assignments must include

1. Cover page with assignment number, date due, date handed in, and explanation if late penalty was waived by prior arrangement
2. Listing of all files
3. Output of all test runs
4. Typed report containing discussion of your design, discussion of each result, discussion of any part of the assignment not implemented or not correct; report may refer to highlighted section of the syntax.

Late Assignment: An assignment turned in later than the due date will be penalized 10% of the total possible points for the assignment for each day late (excluding weekends and University holidays). No late assignment will be accepted after the assignment is graded and returned.

Course Grade: The relative weights for the final grade are distributed among the following.

	Date	Weight
Quiz #1	Jan 28, 2001	5% (50 minutes)
Midterm	Feb 20, 2001	25% (1.5 hours)
Quiz #2	March 18, 2001	5% (50 minutes)
Final	TBA	35% (2.0hours)
Programs and Assignments (6-10)	TBA	30%

Course Schedule: The schedule of topics and their order of coverage is given below. Every effort will be made to follow this table, however, it will vary to some extent depending on the progress made. Reference column in the schedule includes names of power point files. These files will be used in the class. Other power point file names will be added to the reference list as and when they are ready and this addition will be announced in the class. Students are encouraged to download them and bring copies to the class.

TENTATIVE SCHEDULES

DATE	DESCRIPTION	References/Notes
1/3/02 – 1/12/02	C++ introduction & language basics	Chapter 1
1/13/02 – 1/18/02	Control statements & Functions	Chapters 2 & 3
1/19/02 – 2/28/02	Functions & Arrays	Chapters 3 & 4
1/28/02	**Quiz #1**	
1/29/02 – 2/11/02	Strings & Pointers	Chapter 5
2/12/02 – 2/20/02	C++ Stream input/output	Chapter 11
2/20/02	**Mid Term examination**	
2/29/02 – 3/9/02	Exception handling & Function overloading	Chapter 13
3/11/01 – 3/18/02	Classes & Objects	Chapters 6 & 7
3/18/02	**Quiz #2**	
3/18/02 – 3/31/02	Operator overloading & Inheritance	Chapters 8 & 9
4/1/02 – 4/15/02	Polymorphism, Template & Others	Chapters 10 & 12
TBA	**Final examination**	