COP3330 Object Oriented Programming with C++

Course Prerequisites and Knowledge

Fall 2008 Term

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Introduction: COP 3330 is an intense course of study and practicum of the C++ language in the application of the Object Oriented Programming paradigm. While other methods of software development can be used in developing source code using C++, this course will employ OOP in problem solving. Students should be aware that the content of this course will be applicable to the rest of their studies here at Florida State University in the Computer Science Department. It is imperative that students adhere to the following practices:

1. Attend all lectures and recitations. In many cases, the recitation sessions will be used as additional lecture times by the instructor. Merely reading the slides will not be sufficient to keep up with the materials. During the course of the lectures examples will be presented in class that will not be recorded or placed on the web.
2. Keep up with the course materials. Each lecture builds upon the knowledge gained in previous class meetings. It is very important that students review the content of each lecture after presentation and practice the examples in class.
3. Individual work is key to success. While in the "real world" many programmers work in teams with other programmers no one else within that team will be assigned to produce your work. Therefore, it is imperative that you be able to demonstrate that you are capable of producing good reliable code on your own.
4. The programs will be the test. Exams in this course are designed to test the knowledge that you practiced on the programs during the semester. If you took the time to individually produce the programs than you have sufficiently studied for the tests.
5. DON'T PROCRASTINATE: This is the worst thing you can do. Start the programs as soon as you get them. Design the programs and implement the design a piece at a time. The programs are not trivial and usually cannot be completed on a single evening's work. Do not hesitate to request help from the instructor. Email is the best way to contact him.

Prerequisite Knowledge and/or Experience: Students must have completed COP 3014 with a C- or better grade. Students may substitute a similar course from an accredited school. A basic C++ prerequisite knowledge test will be administered during the first recitation period of the first week of class. This test will be given for two reasons: (1) To determine the extent of knowledge that students have retained from their previous class and (2) To allow individuals who do not have credit for an equivalent course such as COP 3014 to demonstrate to the instructor that they may remain in the class. Individuals who do not have credit for COP 3014 or equivalent course

and who do not pass the test with at least a 75% will be dropped from the course. The following is a list of topics that will be covered in the test:

- C/C++ identifiers
- Comments
- Variables
- Assignment statements
- Literal expressions
- Basic data types and initialization
- Constants
- Arithmetic expressions
- Increment and decrement operators
- Basic input and output to the console
- Standard library #include statements
- If - else statements
- Switch statements
- Looping statements (while, do , for, break and continue)
- Functions
    - With return value
    - Without return value
    - With parameters
    - Without parameters
    - return statement
    - Call by value
    - Call by reference
- Local and Global variables to include scope rules.
- Arrys
    - Declaring
    - Referencing
    - Manipulation of array items
    - Initialization of arrays