Course: **MS-3812 INTRO TO PROGRAMMING IN C++ (Sec. 101)**

Time & Loc: Mon and Wed: 4:00pm – 5:40pm in CC-53

Instructor: Dr. Jeffrey Blessing
Email: blessing@msoe.edu
Web site: www.msoe.edu/~blessing/ms3812
Office: R-305
Hours: Mon, Wed, Thurs: 10:00am – 10:50am, 3:00pm – 3:50pm, and by app't'mt.
Phone: 277-7194
Text: *C++ How to Program,* 5th Edition, by Deitel & Deitel, Prentice Hall, 2005.

Objective: This course provides an introduction to computer systems and software by studying one of the popular high-level languages available, C++. Concentration on one language provides an in-depth background to the structured concepts of program and algorithm design. The course specifically deals with programming language syntax, data types and operations, control structures, data structures, and management of run-time resources. Lab exercises using Microsoft's Visual C++ and Unix/Linux K-Develop and Gnu g++ compiler will be used to reinforce the topics presented in the lecture. (Prerequisite: MS-3803)

*Grading**:

Pgming Assign.	30%
Weekly Quizzes	30%
Final (week 11)	30%
Attendance	10%

* No incomplete grades will be given without very extenuating circumstances.

Attendance: Attendance will be taken at each lecture. Exam and Quiz material will come from both the textbook and classroom discussions. **Note**: Students will NOT be automatically dropped from the roster if 3 successive classes are missed. Students wishing to drop this course must file a drop form with the Registrar's Office by 4:30pm on Monday of week 8.

Late Policy: Assignments are due at the beginning of the class period that was designated as their due date. A 10% penalty will be assessed for each day an assignment is late.

Class Sharing: You are encouraged to share information found in newspapers, books, periodicals, on the web, etc. related to the topics in this course. You can even go as far as to show another student your work. However, you are not to give your work to other students. If you use content from another source, you must reference that source in your work. Any attempt to pass off someone else's work as your own is plagiarism and is subject to academic discipline.

Chronology:

Introduction to the Microsoft Visual Studio Environment
    Projects, Separate Compilation, Building & Debugging Programs
Introduction to the C++ Programming Language:
    Expressions

Declarations and Executable Statements
Flow of Control (Sequential, Branching, Iterative)
Nesting Logic Structures
Functions & Parameter Passing
Pointers and References
Object-oriented Programming Basics (inheritance, polymorphism)
String Processing
Data Structures (Arrays, Vectors, Lists, Matrices)
Templates and the STL