

ISM 101

Software Development I

Instructor: Steven Millet
Spring Term 2008
March 18th – May 17th

Email: steven.millet@doane.edu
Course Time: Tuesdays, 6:00 – 10:30 PM

This course provides, through the development of small software applications, an understanding of the process of developing software, including the identification of a problem, and the design, analysis, and implementation of algorithms and data/file structures to solve that problem. Students learn how to implement algorithms and data/file structures in a high-level language, and how to test and verify that implementation. *Intended for ISM majors.* (3 Credits)

Course Objectives: At the end of this course, the student should

1. Understand the software development life cycle.
2. Have a general understanding of software design and charting techniques.
3. Understand how to implement algorithms, as part of the problem solving process.
4. Be familiar with the Visual C++ integrated development environment (Visual Studio.net).
5. Understand the ANSI/ISO C++ standard, and the importance of software portability.
6. Understand the new features C++ adds to its predecessor, the C programming language..
7. Be familiar with the concepts of both sequential and random file access methods.
8. Understand the process involved in developing presentation manager based software (Win XP).
9. Have the background to start planning and designing full-scale software applications.
10. Be able to outline the proper testing procedures that should be followed to assure the accuracy of newly developed software.

Required Course Texts

TBA

<u>Week</u>	<u>General Topics To Be Covered</u>
1	Course Overview Entering, Compiling and Running a Program
2	Introduction to Computers How Computers Are Programmed ISO C++ Standard Variables and Constants Math Operations
3	Strings and Screen I/O Decision Making in Programs
4	Review MIDTERM EXAM LAB EXAM #1 Loops
5	Functions
6	NO CLASS
7	Pointers, enum and Structures
8	Data File Basics Added Features of C++ Introduction to Software Development for Windows XP
9	Review FINAL EXAM LAB EXAM #2

Grading:

The student's final grade will be determined as follows:

- 35% Weekly homework assignments
- 25% Exams (2 scheduled)
- 15% Quizzes (2 scheduled)
- 15% Lab Exams (2 scheduled)
- 10% Attendance and Participation

The following Grading Scale will be used:

100 – 97	A+
96 – 94	A
93 – 90	A-
89 – 87	B+
86 – 84	B
83 – 80	B-
79 – 77	C+
76 – 74	C
73 – 70	C-
69 – 67	D+
66 – 64	D
63 – 60	D-
Below 60	F

Classroom Procedure:

The first 1 ½ to 2 hours of class will always be devoted to lecture. The remaining class time may be reserved for students to work on course assignments. Students are encouraged to make optimum use of this time, as your instructor will be readily available to answer any questions you might have. The only exceptions to this schedule may be on exam or quiz nights. Only students with excused absences will be allowed to take make-up exams or quizzes. Make-ups should be taken no later than one week after the exam or quiz date.

The Doane Academic Integrity Policy will be adhered to in this class. All assignments and exams/quizzes will represent your own work. Any use of others' ideas and words without proper citation of sources is plagiarism and could result in the loss of all points for that particular assignment or exam.