CS 1361: Computer Science I - Course Syllabus for Spring 2011

Instructor: Mrs. Beth Niehues
E-mail Address: beth.niehues@angelo.edu
Web Site: http://www.cs.angelo.edu/~bniehues/
Phone: 325-942-2101 ext. 214
Office: MCS 205E

Office Hours: M 9:30 – 12:00; W 8:30 – 12:00; TR 1:30 – 3:30; and by appointment

Student Learning Outcomes*:

1. Students will become familiar with the basic syntax of the C++ programming language.
2. Students will learn how to create, compile, link, and run a program using the Microsoft Visual Studio integrated development environment.
3. Students will learn how to construct a program using one or more of the following structures: sequence, selection, and repetition.
4. Students will learn how to use functions.
5. Students will learn how to use one-dimensional arrays.

*(see http://www.angelo.edu/dept/computer_science/documents/Syllabi/CS%201361.pdf for a full description)

Assessment of Student Learning Outcomes:

Methods of Assessment: Programming Assignments, Exams, Course Exit Survey

Grading:

Labs/Assignments:	40%	Daily work, completed in the computer lab and as homework
Exams (including a final):	60%	All exams are comprehensive and will be in the computer lab

Course Grade	Overall Average
A	90%
B	80%
C	70%
D	60%

Attendance Policy:

CS 1361 will meet in the computer lab every day. Attendance is mandatory and roll will be taken.

Labs/Assignments:

Some class time will be allowed for programming assignments. Assignments are due on the designated date. Up to 50 programming assignments will be given. They are due on the designated date. Late assignments will be penalized 15 points for each calendar day past the due date. Assignments will be submitted electronically as discussed in class.

Exams:

Four exams plus the final will be in-class exams. The lowest score from the five exams will be dropped. Exams should be considered comprehensive because information in this course builds on previous information. No make-up exam will be given; the missed exam will count as the one allowed drop.

Textbook:

Starting Out With C++ From Control Structures through Objects, 6e, Tony Gaddis, ISBN 9780137010851

Communication:

You are responsible for checking your ASU email account and Blackboard for additional information throughout the duration of this course.

Academic Honor Code:

Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook (see http://www.angelo.edu/forms/pdf/honorcode5.pdf).

Academic Accommodations:

Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request and to implement academic accommodations.

Observance of Religious Holy Days:

Student absence for observance of a religious holy day will be handled according to ASU OP 10.19 (see http://www.angelo.edu/opmanual/)

Class Day	Tentative Schedule*
1	Syllabus, Blackboard, Introduction to Computers & Programming
2	Blackboard, Visual Studio, Special Characters, cout Object, endl Manipulator, \n Escape Sequence, #include Directive, Labs
3	Variables, Literals, Identifiers, Key Words, Integer, Character, and Floating-Point Data Types and Literals, Character Strings, bool Data Type, Variable Assignment and Initialization, Scope, Arithmetic Operators, Comments, Programming Style, Labs
4	cin Object, Displaying a Prompt, Reading Strings with cin, Mathematical Expressions, Order of Operations, Associativity of Operators, Type Conversions and Hierarchy, Type Coercion, Overflow and Underflow, Type Casting, Named Constants, Multiple and Combined Assignments, Formatting Output, Stream Manipulators, Labs
5	Formatted Input, Member Functions, Mathematical Library Functions, Hand Tracing, File Input and Output, Labs
6	**Exam1**
7	Relational Operators and Expressions, if, if/else, and if/else/if Statements, Proper Indentation, Nested if Statements, Flags, Menus, Logical Operators, Labs
8	Comprehensive Labs
9	Validating User Input, Comparing Strings, Conditional Operator, Testing for File Open Errors, Labs
10	Switch Statement, Break Statement, Labs
11	**Exam2**
12	Looping, Increment and Decrement Operators, While Loops, Counters, Labs
13	do-while Loops, for Loops, Accumulators, Sentinels, Using Loops to Read Data from a File, Loop Comparison, Labs
14	Nested Loops, break Statement, continue Statement, Labs
15	Comprehensive Labs
16	Comprehensive Labs
17	Modular Programming, Functions, Parameters, Arguments, Prototypes, Function Headers, Calling Functions, Passing Data by Value, return Statement, Returning a Value from a Function, Labs
18	Comprehensive Labs
19	Local and Global Variables, Static Local Variables, Default Arguments, Reference Variables, Passing by Reference, Overloading Functions, exit Statement, Stubs and Drivers, Labs
20	Comprehensive Labs
21	Comprehensive Labs
22	**Exam3**
23	Arrays, Array Memory Management, Array Initialization, Processing Array Elements, Parallel Arrays, Arrays as Function Arguments,
24	Comprehensive Labs
25	Two-Dimensional Arrays, Arrays of Strings, Arrays with Three or More Dimensions, Labs
26	STL vector Data Type, Labs
27	Comprehensive Labs
28	**Exam4**
29	Dead Week (Comprehensive Labs)
30	Dead Week (Comprehensive Labs, current averages will be distributed in class)
31	**Final**

*if schedule changes are necessary, announcements will be made in class