CS1110 – Computer Science I - Spring 2009
SYLLABUS

(see www.cs.wmich.edu/~cs1110 for further details)

Lecture Instructors
Dr. Mark Kerstetter  Mon-Wed  2:30 - 3:45
Mr. Bob Hardin  Mon-Wed  4:00 - 5:15
Dr. Donna Kaminski  Tues-Thurs  11:30 - 12:45,  Tues-Thurs 1:00 - 2:15

Lab Instructors
Mr. Chaoli Cai, Mr. Joe Baird,
Mon 12:30-2:10,  Mon 5:30-7:10,  Tues 3:30-5:10,  Wed 8:30-10:10,  Fri 10:30-12:10

NOTE: You must be registered for 1 of these lectures and 1 of these labs.

Catalog Description
A first course in the science of programming digital computers. Analysis of problems and development of correct procedures for their solution will be emphasized along with the expression of algorithmic solutions to problems in a structured high-level computer language. Applications will solve both numerical and non-numerical problems for the computer. Co-requisite: MATH 118 (or beyond that level of math).

Prerequisites
It is assumed that you are comfortable using a Windows-based PC, installing software, working with files and folders, etc. No prior programming experience is expected. However, those with some programming in any language (e.g., Visual Basic) or who've had a programming logic course will find many familiar concepts and find the course somewhat easier.

Learning Objectives
A successful graduate of CS1110 . . .
(1) consistently follows a problem solving process,
(2) can follow and develop algorithms that solve elementary programming problems,
(3) understands and uses basic concepts of high-level language procedural programming,
(4) understands and uses basic concepts of object-oriented programming,
(5) consistently documents programs effectively and efficiently,
(6) understands and uses basic components of an Integrated Development Environment (IDE),
(7) knows the basic phases of the software life cycle, and
(8) knows basic introductory sorting and searching algorithms.

Textbook
Visual C# 2008: How To Program (3rd edition)
We will only cover part of the book in CS1110. Much of the rest of the book will be covered in CS1120.

Email
Read your WMU email regularly. Your instructor may have to notify you of announcements, changes in the assignments, cancelled classes due to weather or instructor-illness, etc.

Programming assignments
There will be about 9-11 programming assignments which will be presented in lab. A major portion of your weekly 1 hour 50 minute scheduled lab time will be used for working on the assignments – but you will generally be finishing the assignments on your own outside of class. You may find it helpful to work on the assignment during the additional “open lab” times (when one of the lab instructors is available for one-on-one help) so you can get assistance should you run into problems/questions.

Programs are expected to be running and working correctly when they are submitted. If a program does not compile and run, or if it does not produce any measurable output, it will not be graded (i.e., you get 0 points). You will not be given points for your time and effort developing the program – so do not write the whole program and hope that it works.
Always use **incremental development** – i.e., get a small part of project working correctly where the program produces some assessable output; then add another portion of the code and again get your program to a state where it’s working correctly and producing some gradable output, etc. etc.

You are to do the assignments **ALL ON YOUR OWN** and are not allowed to work with another student on these.

We will be using a **program-code plagiarism detector** this semester across all 5 labs. This system detects program copying or program submissions where 2 or more students “worked together”. (See the Academic Dishonesty section below for further details).

**Assignment submission and due dates**

Your lab instructor will explain how to submit your completed programs on-line (through E-Learning) for grading – there are also instructions on the course web page. **Assignments will NOT BE ACCEPTED VIA EMAIL.**

You will be given submission deadlines for each assignment – usually a week after they are given out. **Late assignments are given a penalty of 5% per day past the due date** (including weekends and holidays). But an assignment will **NOT BE ACCEPTED after 7 days past its due date**. Always work on assignments as soon as they are given out and leave yourself enough time (before the due date) to deal with unexpected problems and bugs (which are likely to come up) – allowing time to get help during your regular lab or open lab hours.

**Quizzes**

There will be a short quiz in most labs consisting of writing a short program, or adding a small chunk of code to an existing program, and then demonstrating the working program to your lab instructor. The material will generally be from something covered in your previous assignment. [No make-ups for quizzes, except in extreme documented situations].

**Exams**

There will be 2 midterms and a final exam. Because of the nature of programming, all 3 exams are cumulative. However, exam 2 will focus more heavily on material covered after exam 1. Exams will be given during lecture sessions. Your instructor will announce the specific dates for exams 1 and 2. The final exam’s date & time are scheduled by the university (see schedule). Makeup exams will only be allowed for valid, documented, extreme situations.

**Participation in lecture**

You are expected to attend every class, arrive on-time, stay the whole class period and actively participate in the in-class activities. Each session will generally have the instructor presenting new concepts by showing C# program examples, with students following along (e.g., downloading/running these examples on their own computers). Most lecture sessions will also have students writing and/or modifying small C# programs on their own or together with a partner in class, according to the instructor’s project specifications.

**Final Grade**

Your final grade will be based on your performance on the 3 exams, the 9 (or so) programming assignments, and various in-class activities including quizzes, lab exercises and participation - weighted as follows:

- midterm exam 1  15%
- midterm exam 2  15%
- final exam 25%
- lab assignments & quizzes 35%
- in-lecture participation 10%

The following minimum percentages will be used for assigning final grades:

90 - A,   85 - B+,  80 - B,   75 - C,  70 - C,  65 - D,  60 - D

However, regardless of your overall % above, in order to pass the course (i.e., a “D”), you must have at least a 60% average in the lab assignments and no more than 2 incomplete/missing assignments. (NOTE: CS and CSE majors need at least a “C” grade in this course in order to proceed to CS1120, since CS1110 is its prerequisite).

An incomplete (“I” grade) can only be given for a student who has missed a relatively small portion of the course due to circumstances beyond his/her control (extreme, documented reasons) – where the student is currently doing C (or better) level work in the course. An “I” cannot be given as a replacement for a low or failing grade.

**Classroom Etiquette**

[this is a university course, so we shouldn’t have to include this in a syllabus, but just as a reminder. . .]

The “lecture” room is a computer lab. This allows students to follow along with example programs shown by the instructor and to do assigned programming tasks when asked. **However, you are NOT to use the computers during lecture FOR ANY OTHER PURPOSE** - once the class starts there must be NO WEB SURFING, CHECKING EMAIL OR MYSPACE, GAME-PLAYING, WORKING ON OTHER CLASSES, WORKING ON CS1110 ASSIGNMENTS, etc. It is inappropriate, counter-productive to learning, rude and distracting to the instructor and
fellow students. Anyone violating this will be penalized as specified by your instructor (e.g., point-deduction, asked to leave class, . .). Also, no food or drink in the classroom/lab, no headphones during class, and turn off your cell phone.

Academic Honesty
[WMU policy] “You are responsible for making yourself aware of and understanding the policies and procedures in the Undergraduate and Graduate Catalogs that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. [The policies can be found at http://catalog.wmich.edu under Academic Policies, Student Rights and Responsibilities.] If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s). If you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.”

Any incident of suspected academic dishonesty will be reported to the Office of Student Conduct. If you are found responsible for a violation, you will receive a penalty of up to and including an “E” for the course.

We will be using a program-code plagiarism detector system this semester. If there are similar assignments turned in, BOTH the plagiarizing student (the copier) and the complicit student (the program writer/lender) will be penalized with a 0 for that asgn PLUS additional penalty points as appropriate.

Some in-class activities are supposed to be done in teams – your instructor will clearly tell you when this is to be done. However, all ASSIGNMENTS are supposed to be done completely on your own (unless your instructor tells you otherwise). For the assignments, here is further guidance as to what is and is not appropriate in terms of academic honesty.

It is considered DISHONEST to:
• copy all or part of someone else's work (current or past student or . . .); OR allow someone to copy all or part of your work;
• use someone else's work (hard-copy or electronic version) “just for reference” OR give someone a copy of your program (hard-copy or electronic version), even “just for reference”;
• have someone write all or part of your work (whether they're in the class or not); OR write all or part of a program for someone else;
• submit an assignment which is not all your own work (unless your instructor specifies it as a team project);
• WORK TOGETHER with someone on an assignment;
• discuss the design of your program with someone to such an extent that the 2 programs look “substantially alike”.

It is NOT considered DISHONEST to:
• help (or to be helped by) another person with a particular bug in your or his/her work program;
• discuss OVERALL strategy or structures for solving a problem;
• demonstrate to someone or ask someone how a particular C# concept works;
• give or get clarification about assignment specifications;
• verify that your output agrees with someone else’s (after you’ve both completed the work independently);
• get further individual help from a lab instructor during regular lab time or during open lab hours.

Schedule
See separate document for the schedule of topics and chapters/sections to be reading.