CIS 200 – Fundamentals of Software Design
Fall 2011

Course Syllabus

Instructors: Julie Thornton and Dr. Dennis Lang
Instructor E-mail: juliet@ ksu.edu and dlang1@ksu.edu
Office Hours (Julie): Tues/Thurs 10:30-12 in Nichols 213 (and by appointment)
Office Hours (Dennis): Mon 1:00-2:00 / Wed 9:30-11 in Nichols 231 (and by appointment)
Course Webpage: After logging on to online.ksu.edu, click "CIS 200"
Teaching Assistants: TBA

Lecture: MTW 2:30-3:20 in Rathbone 1073
Lab: Two hours on Thursday or Friday in Nichols 21 (see your schedule for your time)

Textbook: There is no required textbook for the course. Instead, there will be lecture notes posted to K-State Online.

CodeLab: We will be using an online tool called CodeLab for some of our homework problems. The cost for using CodeLab is $25 (if purchased online) or $27 (if paying by check). Information on registering for CodeLab will be posted to K-State Online.

Prerequisite: MATH 100 or equivalent. Students are expected to have the logical thinking skills that come from applying techniques to solve mathematical problems. We will use these same logical thinking skills when writing computer programs.

Objectives: Learn the fundamentals of writing *computer programs* – specific instructions in a language that the computer can understand. Every computer application you use (such as video games, Microsoft Office products, PaintShop Pro, etc.) and every interactive website you visit is the result of a computer program. In this class, we will learn to write computer programs in Java and C# -- however, the skills we will develop will apply to all programming languages.

The following topics will be covered:

- Introduction to computer programming (in Java)
- Variables and operations
- Output, user input
- Conditional statements
- Loops
- Flowcharts
- Methods
- Arrays
- Strings
- Classes, objects
- Program design
- Reading from and writing to files
- Exceptions

- Collections
- Interfaces
- Basic concurrency
- Program memory
- Recursion
- Transition to C#

Programming Language/Software: The first seven projects must be written in Java and submitted as zip files. All programs must compile and run from the command-line using the javac command. If you are using Windows, you will be able to compile programs using the csc compiler. You are also welcome to use the Eclipse IDE (interactive development environment) to help write your programs.

The eighth project must be written in C# and submitted as a zip file. It must compile and run from the command-line (using csc in Windows and Mono with a Mac). You are welcome to use Visual C# Express (Windows) or MonoDevelop (Mac) to help write the final project.

More information on compiling and running Java programs is available on K-State Online. More information on writing C# programs will be available towards the end of the semester.

Graded Work:

Midterm exams (3)…….....(40%)
Programming projects (8)……..(30%)
Final exam (1).....(15%)
CodeLab…….....……...(7%)
Lab activities (12)…….....(8%)

Grading Scale: A: 100-90, B: 89-80, C: 79-70, D: 69-60, F: 59-0

Programming projects: There will be eight **individual** programming projects throughout the semester. Assignment descriptions will be posted to K-State Online and will be announced during class and by KSU e-mail. The first seven projects are to be written in Java and the last project is to be written in C#. All projects must be submitted as a compressed file (.zip) using an online submission link on K-State Online. Late projects will not be accepted without prior authorization from the instructor (note that requests for late submissions may not be approved).

Exams: There will be three midterm exams and one cumulative final exam throughout the semester. These exams will be closed-books/notes/computers unless otherwise indicated. Makeup exams will only be permitted with prior authorization from the instructor.

CodeLab: There are 227 total problems on CodeLab. To get full credit in this area, you must correctly solve at least 150 of them. All the CodeLab problems are due on the last day of regular classes, but you are encouraged to regularly do problems that correspond to what is done in lecture. More information on CodeLab will be posted on K-State Online.

Lab Activities: There will be 12 lab activities throughout the semester. These activities are required, and will be led by a teaching assistant. Labs may not be made up unless the instructor

is notified in advance. Labs will be completed in pairs. You will be assigned a new partner each day in lab, and you will complete the assignment together.

Course Policies

Prerequisite Policy: This course's prerequisite is MATH 100, and if you have not taken MATH 100 the Engineering College might drop you from this course without notice.

Drop Policy: It is your responsibility to drop the course if you are enrolled but decide not to complete the course --- there are no "automatic" drops due to nonattendance.

Academic Honesty: Kansas State University has an Honor System based on personal integrity, which is presumed to be sufficient assurance that, in academic matters, one's work is performed honestly and without unauthorized assistance. Undergraduate and graduate students, by registration, acknowledge the jurisdiction of the Honor System. The policies and procedures of the Honor System apply to all full and part-time students enrolled in undergraduate and graduate courses on-campus, off-campus, and via distance learning. The honor system website can be reached via the following URL: www.ksu.edu/honor . A component vital to the Honor System is the inclusion of the Honor Pledge which applies to all assignments, examinations, or other course work undertaken by students. The Honor Pledge is implied, whether or not it is stated: "On my honor, as a student, I have neither given nor received unauthorized aid on this academic work." A grade of XF can result from a breach of academic honesty. The F indicates failure in the course; the X indicates the reason is an Honor Pledge violation.

Attendance Policy: You are responsible for all material presented in class. If you must be absent, please ask the instructor or a fellow student what was covered. Makeup exams may be considered, but only if you contact the instructor before the class period.

Collaboration Policy: Every line of work on all submitted assignments must be your own, and any form of copying or collaboration will be considered *plagiarism*. Students who submit projects that are identical or similar to that of another student, whether from collaboration or copying, will receive a zero on that assignment. (If you complete an assignment individually and then let another student copy it, then you are also guilty of plagiarism and will also receive a zero.) Similarly, you are guilty of plagiarism if you submit a project that is similar to an online post or to the instructor's solution from a past semester, and in both cases you will receive a zero. Students who plagiarize more than one assignment will be reported to the Honor Council. Remember that programming is like essay-writing – two individual solutions may both be correct, but they will look different.

Academic Accommodations for Disabled Students: Any student with a disability who needs a classroom accommodation, access to technology or other academic assistance in this course should contact Disability Support Services (dss@k-state.edu) and/or the instructor. DSS serves students with a wide range of disabilities including, but not limited to, physical disabilities, sensory impairments, learning disabilities, attention deficit disorder, depression, and anxiety. Please contact the instructor within the first three weeks of class.