CSIS 2102: Programming and Problem Solving II, Section 001
Spring 2008 Syllabus

Instructor: Dr. Vincent Cicirello **Office:** K-140
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Office Hours: Mondays: 12:45-2:00pm and Wednesdays: 9:55-11:10am
Available other times by appointment
Or, feel free to drop-in any time I'm in my office (if I'm not on my way to a meeting or class, I'd be happy to talk to you).

Course Time and Location:

Section 001:

Monday & Friday, 2:10-3:25pm, F223
Wednesday, 2:10-3:25pm, F114 (lab)

Course Description: This course continues the development of problem solving and programming techniques. Emphasis is placed on data abstraction and implementation techniques such as recursion and dynamic data structures; and more advanced object oriented design concepts such as inheritance, exception handling, and GUI. Assignments involve writing programs using these techniques in an integrated development environment.

Course Objectives: The objectives of this course include:

- Gaining knowledge of programming terminology, methods, and trends, in particular advanced object-oriented programming concepts;
- Learning the fundamentals of data abstraction and object-oriented design;
- Learning to apply programming skills developed in the course to solving problems;
- Developing the programming skills needed by professionals in software engineering and other computer science related careers.

Prerequisites: Grade of C or better in "CSIS2101: Programming and Problem Solving I" (or its equivalent for transfer students) and Grade of C or better in either MATH 2225 or MATH 2215.

Required Textbooks: *Java Concepts, 5th Edition*, by Cay Horstmann, © 2007 Wiley, ISBN 978-0-470-10555-9
For those who took CSIS 2101 when the 4th Edition was used, the 4th Edition of *Java Concepts* is sufficient.

Other Requirements:

- Removable storage media: either a USB flash drive (recommended) or a Zip disk;
- A loki account (userid and password): If you do not already have a loki account, you must obtain one from the Office of Computer Services. This account will be used to access the online course materials that will be available through the WebCT system WebCT will also be used for all e-mail correspondence regarding this course. You will be responsible for checking your WebCT e-mail on a daily basis. Any e-mail that I may send regarding assignments, tests, etc will be conducted via WebCT. Assignments will be submitted via WebCT.

Grading:

Exam 1	15%
Exam 2	15%
Quizzes (approximately 6-10 unannounced)	15%
Programming assignments & other written homework	50%
Participation	5%

Grading Scale: 90+ is an A, 80+ is at least a B, 70+ is at least a C, 60+ is at least a D
The phrase "at least a [lettergrade]" allows for a curve (if necessary). Occasionally, an exam or homework assignment may turn out to be harder than thought by the instructor. Depending on the final grade distribution, these grade boundaries may be adjusted, but no higher than stated above.

Quizzes: There will be approximately 6-10 quizzes. These will not be announced beforehand and can occur at either the beginning, middle, or end of class. It is possible, though unlikely, that more than one could occur in the same class session. They will be short (designed to take no more than 10-20 minutes). Their purpose is three-fold: (1) to help ensure that you are keeping up with the material; (2) to provide me with feedback on what topics may require additional class coverage; and (3) to provide you with feedback on what topics you may need additional review prior to the exams. **There will be no make-up quizzes.** You must be present the day of a quiz in order to take it. You will not be penalized if a quiz is missed for a documented medical excuse. Half of your grade on each quiz will come simply from taking it—the other half will be based on your answers.

Exam 1, Exam 2: Exam 1 will cover material from the beginning of class until exam day. Exam 2 will cover material after Exam 1 and up to Exam 2. Although the exams are not explicitly cumulative, due to the nature of the course content you may be implicitly tested on material prior to the previous exam(s). For example, on Exam 2, there won't be any problems that explicitly test your knowledge on material covered prior to Exam 1; however, there may be problems on Exam 2 that explicitly test post-Exam 1 material that depends on recall of pre-Exam 1 material.

Programming Assignments: All programming assignments can be worked on as a team of 2 or you can do them individually if you choose. If you do them as a team of 2, both receive the same grade for the assignment. Be sure to include both names on the assignment when it is submitted. Although all assignments can be completed by a single student working independently, I strongly encourage you to work on them in pairs. Researchers have shown that "paired" programming can improve students' understanding of course content. Also, some of the assignments will be allotted time during the lab day to get you started.

Due Dates: Homeworks and programming assignments will generally be due electronically via WebCT and will be due by midnight on the dates due. Late programming assignments and homeworks will be penalized by 50% of the grade that would have been obtained if submitted on time, but will not be accepted if more than 1 week late. I strive to return assignments graded in a timely manner, and thus cannot accept lateness beyond 1 week since that would delay returning graded assignments to the class as a whole.

Academic Honesty: Please familiarize yourself with Stockton's policy on academic honesty. Violations will result in a minimum penalty of a grade of 0 for the assignment or test involved in the violation. The in-class exams are closed book, but you are allowed one sheet of notes no larger than an 8.5in by 11in piece of paper. The in-class quizzes are closed book and closed notes---no texts, other students tests, or other aids may be consulted. "Other aids" that are not allowed include cell phones, calculators, pagers, PDAs, and other communications devices, unless indicated by the instructor prior to exam day.

Make-Up Exams: Make-up exams in general will not be given (i.e., if you miss an exam, you get a 0). The only exceptions to this rule are the following:

1) Documented medical excuse: please provide a note on doctor's letterhead on the first class you return to after the missed exam
2) Other institutional excuses: There may arise situations related specifically to Stockton that prevent you from being able to attend an exam. In most such cases, you should be aware of the conflict beforehand. Thus, I must be notified of this conflict one week prior to the missed exam. Send me e-mail via WebCT with the details of the planned absence, and provide me with proper documentation (e.g., memo from sports coach, memo from other faculty memo sponsoring a field trip, etc).
3) Other similar situations: similar documentation must be provided.

Incomplete Policy: In general, no grades of incomplete will be given. The only exception to this rule is an institutionally documented medical emergency that necessitates your absence from Stockton for a period greater than two continuous semester weeks. Additionally, you must be caught up on all work up to the point where your medical emergency began and currently in the "C" range or better overall at the point where your emergency began.

Tentative Schedule:

This schedule is subject to change. Changes will be announced via WebCT (and in class). If tentative exam dates change, they will be announced at least one week prior. Number of programming assignments subject to change in either direction.

Section and Chapter references below are for the 5th Edition of the textbook (4th Edition in parentheses)

Date	Text and Topic
January **23**	Syllabus, Course Overview, Review of types, objects, methods, etc
25	More Review
28	Interfaces and Polymorphism, 9.1-9.3 (old 11.1-11.3)
30	Programming Assignment 1 begun in class
February 1	Callbacks, Inner Classes, 9.4-9.5 (old 11.4-11.5)
4	Callbacks, Inner Classes, 9.4-9.5 (old 11.4-11.5)
6	Programming Assignment 2 begun in class
8	Intro to Inheritance, 10.1-10.2 (old 13.1-13.2)
11	Inheriting fields and methods, subclass construction, 10.3-10.4 (old 13.3-13.4)
13	Programming Assignment 3 begun in class
15	Polymorphism, 10.5-10.6 (old 13.5-13.6)
18	Access Control 10.7 (old 13.7); The Object class, 10.8 (old 13.8)
20	Programming Assignment 4 begun in class
22	Introductory Graphics, 2.11-2.12, 3.9 (old 5.1-5.3)
25	Introductory Graphics, 3.9, 2.13 (old 5.3-5.5)
27	Programming Assignment 5 begun in class
29	Events, event sources, event listeners, 9.6-9.7 (old 12.1, 11.7)
March 3	Timer Events, 9.9 (old 11.6)
5	Programming Assignment 6 begun in class
7	Review for Exam 1
10	**EXAM 1**
12	Buttons, Text Fields, Mouse Events, 9.8, 10.10, 9.10 (old 12.2-12.4)
14	GUI, customizing frames and layout management, 10.9, 18.1 (old 14.1-14.2)
17	**NO CLASS: SPRING BREAK**
19	**NO CLASS: SPRING BREAK**
21	**NO CLASS: SPRING BREAK**
24	GUI, choices, menus, and text areas, 18.2-18.3, 10.11 (old 14.3-14.5)
26	Programming Assignment 7 begun in class
28	GUI, Java's Swing package, 18.4 (old 14.6)
31	File IO, Reading/Writing Text Files, 11.1 (old 16.1)
April **2**	Programming Assignment 8 begun in class
4	Exception Handling, 11.2-11.4 (old 15.1-15.3)
7	Exception Handling, 11.5-11.6 (old 15.4-15.5)
9	**NO CLASS: Preceptorial Advising Day**
11	Recursion, 13.1-13.4 (old 18.1-18.3,18.5)
14	Recursion, 13.5 (old 18.4)
16	Programming Assignment 9 begun in class
18	Intro to sorting, Selection Sort, 14.1,14.3 (old 19.1, 19.3)
21	Mergesort, 14.4-14.5 (old 19.4-19.5)
23	Programming Assignment 10 begun in class
25	Searching, 14.6-14.8 (old 19.6-19.8)
28	If time Quicksort or some other sorting/searching topic
30	Review for Exam
May 2	**EXAM 2: 2:30-5:00 (extended schedule)**
5	**NO CLASS DUE TO EXTENDED SCHEDULE**