Fall 2005

CS 141: Computer Programming I

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Wright State University - Main Campus

Computer Science 141 - Computer Programming I

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Wright State University

Course Description
This course provides a general introduction to the fundamentals of computer programming. Examples from and applications to a broad range of problems are given. No prior knowledge of programming is assumed. The concepts covered will be applied to the Java programming language. (Students must register for both lecture and one laboratory section.)

Goal
There are several goals to accomplish in CS 141:
1. Learning basic programming skills.
2. Conceptualize how computer programs are logically developed.
3. Develop an appreciation for systems and programming.
4. Learn how to solve real, complex problems
5. Have some fun!

Lecturer
Eric Matson
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Phone: 937-775-5108
Office Hours: Tuesday/Thursday 10:00 – 12:00 Russ 336 or by appt.
Email: eric.matson@wright.edu
Web: www.cs.wright.edu/~matson
Class: Tuesday/Thursday 4:10 – 5:25 Russ Engineering Center 150

Text
Introduction to Java Programming Comprehensive Version, Fifth Edition, Y. Daniel Liang, Prentice-Hall, 2004, ISBN 0-13-148952-6.

Textbook Web Resources: http://www.cs.armstrong.edu/liang/intro5e/student.html
This is a very useful link. It contains links to all the Java software, some sample quizzes, and sample programs.

Prerequisites
For this class the official prerequisite is *CS 241*. Please let me know the first lecture if you do not meet this prerequisite, and we can talk about your preparation if it differs.

Grading

Progamming Lab Assignments	50%
Midterm Exam & Quizzes	20%
Final Exam	30%

The base scale is: A: 90-100, B: 80-89, C: 70-79, D: 60-69, F: 0-59. This is the highest requirement that will be used. The scales may be lowered or revised if necessary, **unless you get less than 70% of the possible points on your programming lab assignments in which case you fail the entire course regardless of your overall course average.**

Policies and Notes

- Attendance: Attendance is not required, nor will it be taken after the first couple of lectures. If you are not a regular attendee, it will be your responsibility to seek out what material was covered in the lecture and learn it. Most of my exam questions will be taken directly from ideas covered during the lecture, so it greatly helps if you attend!

- I will utilize my CS web page (www.cs.wright.edu/~matson) to post updates to the course, sample code, projects, announcements, schedule, etc. Get in the habit of checking it regularly.

- The prerequisites of the course are basic understanding of high-level development in C++ and object oriented concepts. If you are not confident in your skills or do not have the required prerequisites, then visit with me and I can evaluate how to catch your skills up the appropriate level and develop a plan to do so.

- Always make back ups of all of you work. Never have just one copy of anything!

- If you are going to miss an exam, for any reason, discuss it with me in advance. If it is an emergency situation, please notify me as soon as possible.

- You can reach me a number of ways. Email is normally the best as I check it about 18 hours a day normally. You can also reach me by phone during the day at 775-5108. If you need human contact either stop in during my office hours, make an appointment, or just come by my office. If I am in and not on a deadline to get something else completed, I will normally try to help as much as possible.

- There are technologies we will use in this class that you may not already know, such as file transfer, command line, text editors, file systems, etc. We will cover some of these technologies as we go.

- The key to learning in this class will be spending time working through the problems. Don't wait until 2 hours before something is due to try to learn the concept and then write the program. This normally ends in a disaster! Stay up with the readings and try to work through some of the examples in the book. I will post what I call, "10 minute programs" which are exercises that you can work through to learn key concepts. And yes, they are programs you can write and execute in 10 minutes (unless you are a really slow typist, like me. In that case, they become "20 minute programs".)

Academic Misconduct

In this class, the only way to truly learn the concepts to is do the work yourself. I encourage working with other people on the course concepts. When you begin to write the program, complete and submit your own work.

Work that has obviously been copied or in the more extreme case, when the original author's name has not even been changed, both parties will receive a 0 grade for that assignment. Both parties will also be turned over to the Office of Judicial Affairs.

Schedule (always subject to changes)

#	Day	Date	Topic	Reading
1	T	Sept 6	Algorithms, Languages, Computers, Number Systems, Web and Java	Chap 1.1-1.6, 1.8-1.11, Supplement B
2	U	Sept 8	Your First Java Program	
3	T	Sept 13	Data Types, Operations, the Math Class	Chap 2.1-2.12, 2.19-2.20 Chap 4.8-9
4	U	Sept 15	MyInput, Output Methods, Errors and Debugging	
5	T	Sept 20	Strings	Chap 2.13-2.17, Supplement T Chap 3.1-3.2
6	U	Sept 22	Formatting	
7	T	Sept 27	Selection	Chap 3.2-3.5, 3.7
8	U	Sept 29	Loops	
9	T	Oct 4	Program Style, Documentation and Guidelines	Ch 3.6, Chap 2.18, Supplement D
10	U	Oct 6	**Midterm Exam**	
11	T	Oct 11	Arrays, Sorting	Chap 5.1-5.2, 5.6 Chap 4.1-4.4
12	U	Oct 13	Methods	
13	T	Oct 18	Recursion, Stepwise Refinement, Passing & Returning Arrays,	Chap 4.5-4.7, 4.9-4.11 Chap 5.3-5.5, 5.8
14	U	Oct 20	Multidimensional Arrays	
15	T	Oct 25	Objects and Classes	Chap 6.1-6.8
16	U	Oct 27	Objects and Classes	
17	T	Nov 1	Objects and Classes	Chap 6.9-6.15 Chap 7.1-7.3
18	U	Nov 3	Strings	
19	T	Nov 8	Strings Concluded, Command-Line Arguments	Chap 7.4-7.8
20	U	Nov 10	Review	
21	T	Nov 15	**Final Exam** 5:45 – 7:45 pm	

Always have readings scheduled for that day complete prior to the class meeting

Note: T = Tuesday
U = Thursday