Spring 2005

CEG 255-01: Introduction to the Design of Information Technology Systems

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Wright State University - Main Campus

S06

Introduction to the Design of Information Technology Systems
Spring Quarter 2006
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Course Description

Information systems consist of modern elements such as database systems, networks, multi-platform distributed computing, web infrastructure and multimedia computing. In this course we will address these areas individually and also where they intersect to gain a basic understanding of how information technology can be used to solve real problems.

We will develop techniques to design, develop and implement distributed business software. Emphasis will be on the following areas:

1. Graphical User Interfaces (GUI) using Java Swing classes
2. Management of data in Relational Database Management Systems (RDBMS) with SQL
3. Integration of distributed systems using object brokering systems such as CORBA

Goals

There are several goals to accomplish in CEG 255:

1. Master the individual techniques in Java for implementing IT Systems (CORBA, GUI, etc.)
2. Conceptualize how the individual techniques can be used together
3. Learn how to solve real, complex problems
4. Have some fun!

Class Details

Lecturer: Eric Matson
Office: 336 Russ Engineering Center
Phone: 937-775-5108
Office Hours: Monday 2:00-4:00, Tuesday 4:00-6:00 at Russ 336 or by appt.
Email: eric.matson@wright.edu
Web: http://www.cs.wright.edu/matson
Class: MW 6:05 - 7:20 Russ Engineering Center 144
Text: Big Java,2nd Edition , Cay Horstmann, John Wiley and Sons, Inc.
IDE: NetBeans (free from NetBeans.org or java.sun.com)

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

Homework/Projects 50%
Midterm Exam 25%
Final Exam 25%

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.

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 WebCT 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. Dont 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 authors 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) Always have readings scheduled for that day complete prior to the class meeting

#	Date	Topic	Reading
1	March 27	Introduction	Chapter 1
2	March 29	Classes and Objects	2,3
3	April 3	Data Types, Decisions, Iterations	4,6,7
4	April 5	Arrays	8
5	April 10	Basic Graphics	5
6	April 12	Basic Graphics	
7	April 17	Event Handling	12
8	April 19	Graphical User Interfaces (GUI)	14
9	April 24	Graphical User Interfaces (GUI)	
10	April 26	Midterm Examination	
11	May 1	Networking Basics	24
12	May 3	Database Design	25
3	May 8	Database Design	
14	May 10	Database Design (JDBC)	
15	May 15	Database Design (JDBC)	
16	May 17	Distributed Systems Technology	
17	May 22	Distributed Systems Technology	
18	May 24	Distributed Systems Technology	
19	May 29	Memorial Day - No Classes	
20	May 31	Distributed Systems Technology	
21	June 7	Final Exam	8:00-10:00 pm