

Spring 2005

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

Eric Maston

*Wright State University - Main Campus*

Follow this and additional works at: [https://corescholar.libraries.wright.edu/cecs\\_syllabi](https://corescholar.libraries.wright.edu/cecs_syllabi)



Part of the [Computer Engineering Commons](#), and the [Computer Sciences Commons](#)

---

## Repository Citation

Maston, E. (2005). CEG 255-01: Introduction to the Design of Information Technology Systems. .  
[https://corescholar.libraries.wright.edu/cecs\\_syllabi/1023](https://corescholar.libraries.wright.edu/cecs_syllabi/1023)

This Syllabus is brought to you for free and open access by the College of Engineering & Computer Science at CORE Scholar. It has been accepted for inclusion in Computer Science & Engineering Syllabi by an authorized administrator of CORE Scholar. For more information, please contact [corescholar@www.libraries.wright.edu](mailto:corescholar@www.libraries.wright.edu), [library-corescholar@wright.edu](mailto:library-corescholar@wright.edu).

# **Computer Engineering (CEG) 255**

## **Introduction to the Design of Information Technology Systems**

Spring Quarter 2005  
Wright State University

### **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:

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

### **Goal**

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!

### **Lecturer**

Eric Matson

Office: 336 Russ Engineering Center

Phone: 937-775-5108

Office Hours: Monday/Wednesday 1:00 - 2:45, or by appt.

Email: [matson@cs.wright.edu](mailto:matson@cs.wright.edu)

Web: [www.cs.wright.edu/~matson](http://www.cs.wright.edu/~matson)

Class: Monday/Wednesday 6:05 - 7:20 Russ Engr. Center 154

### **Text**

Required: *Big Java, 2<sup>nd</sup> Edition*, Cay Horstmann, John Wiley and Sons, Inc.

### **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	40%
Project	10%
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 my CS web page ([www.cs.wright.edu/~matson](http://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	M	Mar 28	Introduction	1
2	W	Mar 30	Objects and Classes	2, 3
3	M	Apr 4	Data Types, Decisions, Iteration	4-6
4	W	Apr 6	Design of Classes, Arrays	
5	M	Apr 11	Basic Graphics	5
6	W	Apr 13	Basic Graphics	
7	M	Apr 18	Event Handling	12
8	W	Apr 20	GUI	14
9	M	Apr 25	GUI	
10	W	Apr 27	Midterm Exam	
11	M	May 2	RDBMS Connections	24.1 - 24.4
12	W	May 4	RDBMS/JDBC	25
13	M	May 9	RDBMS/JDBC	
14	W	May 11	RDBMS/JDBC	
15	M	May 16	RDBMS/JDBC	

16	W	May 18	CORBA	Handouts
17	M	May 23	CORBA	
18	W	May 25	CORBA	
19	M	May30	CORBA	
20	W	Jun 1	Review	
21	W	Jun 8	Final Exam 8:00 - 10:00 pm	

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

Note: M = Monday  
W = Wednesday