CSED 401: Introduction to Programming and Computer Science (Section 001)
Fall II 2005 Course Information & Syllabus

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Lectures: 5:45–9:45 pm on 10/27, 11/3, 11/10, 11/17, 11/18, 12/1, 12/8, and 12/15 in 25EP-L08.
Sometimes lecture notes or a summary may be available on the web. Other than that, if you have to miss a class, get notes from another student; mine are typically pieced together from more than one place with a lot of metacomments, which makes it hard for anybody but me to follow them. Also get copies of any missed handouts (available on the web site). The handouts are numbered sequentially, starting with handout 0. On handout 0, you need to fill in some information and return it to me promptly so you can be on the email list and get access to the web site for the course.

Office Hours: In Lewis Towers 512E: 11:15–12:30 on Monday and Wednesday.
These are the guaranteed times to find me except as announced in advance. You should also feel free to look for me at other times or make appointments.

Course Objectives: This course will provide an overview of the workings of computer software and hardware. It will include development of elementary programming skills using a language such as Visual Basic and an introductory presentation of how computer hardware works, covering such topics as CPUs, memory, peripheral devices, and the role of operating systems. Time permitting, there will also be an overview of databases.

Prerequisites: None.

Required Text: The following textbook was selected before the course was assigned to me and will be followed for general introductory computer science material:

J. Glenn Brookshear. *Computer Science: An Overview.* Addison-Wesley, eighth edition, 2005.

The following text is also recommended for the large portion of the course focused on developing basic programming skills:

David I. Schneider. *An Introduction to Programming Using Visual Basic .Net.* Prentice-Hall, fifth edition, 2003.

Course Requirements: There will be midterm and final exams, and homework approximately weekly. Tentative weightings in the semester grade are: Homework 40%, Midterm Exam 25%, and Final exam 35%.

Homework: Only homework turned in by the due date is guaranteed to be graded. Any special circumstances that cause difficulty in meeting the deadlines should be brought to the attention of the instructor in advance. Homework must be handed in at the beginning of class, since solutions may be handed out in the same class on occasion. Homework turned in to my mailbox will generally not be graded, since I do not check the box continually and cannot generally verify that homework was turned in before solutions were distributed or discussed in class. If you cannot turn in homework in person, you should put it under the door of my office.

Exams: Tentatively, we'll have a midterm in session 5 and a final in session 8, each for 120 minutes.

Collaboration: *No* collaboration is permitted on exams. *Collaboration* on homework is acceptable, but *copying* is not! (Safeguard your files and printouts.) You may discuss solution techniques with other students, but you must write up your solutions independently. If you obtain a solution through research, e.g., in the library, credit your source and write up the solution in your own words.

Tentative Course Outline and Approximate Schedule:

Recommended readings from the text are shown on a weekly basis. (When selected sections or subsections are listed, it is assumed that you will include the introduction of the corresponding chapter or section.)

1. (10/27) Introduction to CS. Brookshear Chapter 0. Data Storage. Brookshear Sections 1.1–5. Additional introductory material, including Windows and VB.NET. Schneider Chapter 1. Program development. Schneider Chapter 2.
2. (11/3) VB.NET fundamentals. Schneider Chapter 3. Procedures. Schneider Chapter 4.
3. (11/10) Conditionals in VB.NET. Schneider Chapter 5. Loops in VB.NET. Schneider Sections 6.1–3.
4. (11/17) Arrays in VB.NET. Schneider Sections 7.1–3. Additional VB.NET Controls. Schneider Sections 9.1–3.
5. (11/18) Exam I on material of 10/27, 11/3, and 11/10. Catchup on remaining lecture material.
6. (12/1) Overview of hardware, operating systems, and networks. Brookshear Chapters 2–4.
7. (12/8) Introduction to Databases and SQL. Brookshear Sections 9.1–3. Schneider Sections 10.1–2.
8. (12/15) Final exam. As enrichment material we may go a little deeper into algorithms and programming language topics via Brookshear Chapter 5 and Sections 6.1–2 at the final class or before.