

CSC005 – Overview Of Computer Science

Hofstra University – Fall 2006

Instructor: Vinnie Costa

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Class Meets: Mondays and Wednesdays, 8:05-9:30PM, Adams, Rm: 106

Office hours: Mondays, 7:30-8:00PM, Adams 211, and after class

1.Course Overview and Description

Introduction to fundamental concepts in computer hardware and software. Exploration of the history and evolution of computing, and foundational areas of current computer science research. Algorithms, program development, and problem solving. Elements and use of a high-level programming language.

2.Required Text

Nell Dale and John Lewis, [Computer Science Illuminated](#), 2/e, Jones and Bartlett Publishers, 2004, 699pp., ISBN: 0763726265

3.Grading

There will be several **assignments** during the class, three of these will count towards your grade (you'll get advanced notice). There will also be a **mid-term** and an **end-term** exam. These will be take home exams assigned a week before the due date.

Class participation and involvement counts. This should be an interactive experience. Please feel free to share information and ideas. Be willing to assist others.

There will be no makeup tests (mid-term and end-term exams) or extended deadlines. Submitting the test on an alternative date is at the discretion of the instructor, but prior arrangements should be made (unless, in case of emergencies, in which case, proper documents should be provided).

1.1Point Allocation:

Assignments 1-3: 10% each
Mid-Term: 30%
End-Term: 35%
Participation: 5%

4.Attendance

Attendance will be taken at each class but it is not mandatory. However, if you do not attend class regularly, you will have a high probability of failing. Participation is important to fully appreciate the subject. If you cannot make a class for some reason (travel, business commitments, etc.) try to let me know.

5.Course Outline

Table 1 is a rough outline of the course. This schedule may change depending on the pace of the class and threads of discussion. Assignment dates are not shown here. These will be provided at a later date.

Session	Date	Topic
1	9/8	Introduction
2	9/11	Binary Values and Number Systems
3	9/13	Data Representation
4	9/18	Data Representation
5	9/20	The World Wide Web
6	9/25	The World Wide Web
7	9/27	Gates and Circuits
8	10/4	Gates and Circuits
9	10/9	Computing Components
10	10/11	Computing Components, Problem Solving

11	10/16	Problem Solving and Algorithm Design
12	10/18	Low Level Programming Languages
13	10/23	High Level Programming Languages – Midterm Exam Due
14	10/29	High Level Programming Languages
15	11/1	High Level Programming Languages
16	11/6	Operating Systems
17	11/8	Operating Systems
18	11/13	File Systems and Directories
19	11/15	Information Systems
20	11/20	Workshop
21	11/27	Networks
22	11/29	Network Security
23	12/4	Artificial Intelligence
24	12/6	Special Topics
25	12/11	Limits of Computing
26	12/18	Final Exam Due
		(the schedule is subject to change)

Table 1: Course Outline

6. Programming Assignments

There will be several programming assignments. The programs will be graded 80% on correctness and 20% on style (general structure, comments, etc.)

7. Slides, Links and News

I will try to have the slides for each class available on a web site at:

<http://www.cs.hofstra.edu/~csevjc/Fall06>

These will be available in HTML, OpenOffice, and PowerPoint formats. There will also be helpful and interesting links along with news items.

8. Class Rules

- Unless specifically stated otherwise, *assignments are to be completed individually*. You are encouraged to discuss the understanding of a particular issue or class material with fellow students, but code and solutions have to be your own effort.
- *Academic honesty* is to be taken very seriously. If you submit work that references another person's efforts, then you must properly attribute it to that person, otherwise it is plagiarism and you will receive zero credits.
- This is not a course in how to crack systems, it is practically impossible for us to avoid discussing concrete security weaknesses in existing systems. *Any attempt* to use such information to gain *unauthorized access* to any system will be dealt with harshly.