CMSC 121: Introduction to Computer Science (3 credits) Spring 2009

Instructor: Robert Marmorstein, 395-2185, rmmarm@sdf.lonestar.org
Lecture: 11:00am-12:15am TR, Ruffner 356
Office Hours: 10:00am-10:50am MTWRF, Ruffner 329
Course Web Site: http://narnia.homeunix.com/~robert/Fall2008/cs121.html

I am also available outside my usual office hours. To make an appointment with me, please send e-mail to rmmarm@sdf.lonestar.org.

Course Description: An introduction to computer science for non-specialists. Basic computer architecture and design, storage formats, principles of computer operation, and algorithms. Application software that emphasizes the computer as a tool.

Course Objectives: This course will introduce the student to basic concepts of computing and computer-related arithmetic. The student will master the fundamentals of number systems, data representation, boolean algebra, arithmetic operations, algorithms, error correction codes, computability, and compression algorithms.

Textbook: There will be no textbook for this course. If you are unable to attend a lecture, you will need to retrieve the handouts and notes from me during office hours or by e-mail.

Course Requirements: Your grade will depend on your successful completion of the final exam (worth 20% of your grade) as well as the two midterm exams (25%), homework (25%), and quizzes (15%). The remaining 15% of your grade will come from successful completion of a five page semester paper which will be assigned at the beginning of the semester. The first draft of this paper must be completed by February 25th and the final copy is due by April 8th.

Grading Policy: Late work will not be accepted unless you have a medical condition or family emergency which prevents you from completing the assignment on time. In such circumstances, you do not need a doctor's note, but you must notify me by e-mail at least 12 hours before the assignment is due.

Grading Scale: A+: 100, A: 96-99, A-: 90-95, B+: 87-89, B: 83-86, B-: 80-82, C+: 77-79, C: 73-76, C-: 70-72, D+: 67-69, D: 63-66, D-: 60-63, F: below 60.

Attendance: I expect you to attend class unless you are sick or engaged in a school sponsored sports event or extra-curricular activity. I will rely on your honor to enforce the attendance policy. In accordance with Longwood policy, missing more than 10% of scheduled class time to unexcused absences may result in loss of one letter grade. Missing more than 25% of class (whether excused or unexcused absences) may, at my discretion, result in a failing grade.

Food and Drink: I would prefer that you do not eat in class (it distracts me and the other students). You may bring water, milk, juice or a soda to drink. Violations of this policy will be considered an unexcused absence. I occasionally make exceptions to this rule for students who would otherwise miss lunch. If you feel that you need such an exception, you MUST make arrangements with me before you bring food to class.

Cell Phones and Laptops: Cell phones and laptops must be turned off and put away during lecture, unless specifically noted at the beginning of class. Violations of this policy will be considered an unexcused absence.

Collaboration: You may freely discuss homework problems with other students *as long as you write down (or type) your own answers in your own words*. Tests and quizzes must be completed entirely on your own. All tests and quizzes will be taken closed-book and closed-notes. Infractions of this policy will be dealt with under the Longwood Honor Code. A student convicted of an Honor Code offense involving this class will receive a grade of F for the course in addition to any penalties imposed by the Honor board. *You should consider all work in this class to be pledged work.*

Tentative Course Schedule:

Jan 13-15	Introduction, Order of Operations, Spreadsheets
Jan 20-22	Recursion, Functions and Decisions
Jan 27-29	Binary and Decimal Numbers, Hexadecimal, ASCII
Feb 3-5	Hardware: Units and Components
Feb 10-12	Two's Complement Numbers
Feb 17-19	IEEE Floating Point Numbers
Feb 24-26	Midterm Review, **Midterm I**
Mar 3-5	Hardware: Units and Components
Mar 10-12	**Holiday -- No Classes**
Mar 17-19	Circuits and Digital Logic, Truth Tables
Mar 24-26	Laws of Logic, Sum of Products, Karnaugh Maps
Mar 31-Apr 2	Midterm Review, **Midterm II (Closed Book, Closed Notes)**
Apr 7-9	Information Theory, File Compression
Apr 14-16	Error Correcting Codes
Apr 21-23	Final Review and Catchup
Apr 27 (Monday)	**FINAL EXAM (3:00pm-5:30pm)**