Electrical and Computer Engineering Department
University of Maryland
College Park, MD 20742-3285
Glenn L. Martin Institute of Technology ♦ A. James Clark School of Engineering
Dr. Charles B. Silio, Jr.
Telephone 301-405-3668
Fax 301-314-9281
silio@umd.edu

ENEE 350 Computer Organization, Summer 2008

(Section 101; CHE2145; MTWTh 8 – 9:20 a.m.)

Text: Andrew S. Tanenbaum, *Structured Computer Organization, 5th Ed.*, Prentice Hall, 2006, ISBN 0-13-148521-0.

Requirement: An account on the Univ. of Maryland Glue computers with X-Windows terminal access.

Grading:	Exam I	(about Class 14, Tues., June 24)	30%
	Exam II	(about Class 24, Thurs., July 10)	30%
	Final Exam	(firm date: Wed., July 23)	30%
	Homework, unannounced quizzes, & instructor's subjective impression of class participation		10%

Exams are **closed book, closed notes, & no electronic devices, such as calculators, PDAs, etc.** *Homework will be collected & marked. There will be a* **few short** *assembly language programs as part of the homework.* These **programming assignments must be completed according to specification and turned in working (even if late)**; they comprise 40% of your homework grade. The late penalty for programming projects is 10% per day. **No other late homework will be accepted.** Letter grades are based on semester average: A $\geq$ 90%, 80% $\leq$ B $\leq$ 89%, 70% $\leq$ C $\leq$ 79%, 60% $\leq$ D $\leq$ 69%, F $<$ 60%.

- If your final exam score is higher than your lowest score on Exam I or Exam II, then the final exam score will replace that lowest score in computation of your semester average.
- **No midterm makeup exams will be given for any reason.** If you must miss an exam, you must first get permission from Professor Silio before the exam, and the final exam score will count for that portion of the grade. This will count as your one replacement.

Approximate Schedule: (Subject to amendments by instructor)

Starting about	*Material*
Class 1:	Chapter 1. Introduction, and Appendix A Review of number systems conversions and complement arithmetic.
Class 2:	Chapter 1. Introduction, history (memorize Fig. 1-2)
Class 4:	Chapter 2. Computer systems organization; and Chapt. 5 Secs. 5.4 – 5.6.
Class 6:	Chapter 3 (Sections 3.3 to end). Memory, CPU, chips, buses, interfacing.
Class 8:	Chapter 4. The microprogramming level. (Secs. 4.1-4.3 & Mic-1/Mac-1, Microarchitecture Notes)
Class 10:	Chapter 5. The conventional machine level (& addressing modes).
Class 15:	Chapter 7. The assembly language level. (& examples from Silio notes)
Class 19:	Appendix B. and Silio notes: Floating-point data representations.
Class 24:	Chapter 6. The operating system machine level; piplining, cache, branch prediction (Secs. 4.4–4.6) & virtual memory (Sec. 6.1).

Office Hours: Mon.,Tues., Wed., Thurs.: 11 a.m. – 12 noon
in room number: **AVW-1329** **Other times by appointment.**

- continued -

- If you have problems with my office hours and need to see me you can make an apointment. My phone number is 301-405-3668, and my home number is 301-937-7418 in case you need to reach me there.
- If you have a **documented disability** and wish to discuss academic accommodations with me, please contact me as soon as possible and **not later than Tuesday, June 10**.
- If **any exam** (especially the final exam) is scheduled on a **religious holiday** that you are compelled to observe, and you must make arrangements to take the exam on a different date, please see me about making these arrangements **not later than Tues., June 10**.

Homework and Grading Policies

- There will be approximately 10-14 homework/programming assignments during the semester. Homework is due at the **beginning** of class on the date indicated. **No late homework will be accepted for any reason.** The only exception is for programming assignments, as noted previously.
- Do homework on 8.5×11 inch paper with problems in the order of assignment. **Label the first page in the upper right hand corner with your full name, course number (ENEE350), and homework or programming assignment number.** Staple the pages in the upper lefthand corner, and do not fold them.
- If you dispute your grade on any homework or exam, you have one week from the date the paper was returned to request a change in grade. After this time, no change in grade will be considered. All requests for a change in grade must be submitted in writing. A request for change in grade must be labeled in the same manner as a homework assignment with name, and course number.
- It is important that you do the homework and especially both the microprogramming and assembly language programming assignments in order to understand the material in the course. While it is perfectly reasonable to discuss your approach to solving the problems with a friend, the final writeup of the solution should be your own work and not a copy of your friend's solution.
- Typically, graded homeworks will be returned one week after they are collected. Since it is not possible in finite time for the grader to mark all assigned problems in detail in assigning a homework score, solutions will be made available for each homework assignment and you should go over them in detail yourself to correct any errors you may have made that were not caught in the marking process. The last homework assignments collected before an exam might not be returned before the exam date. Therefore, you might want to retain a photocopy of all of your homework solutions for use in studying for the exams.
- It is your responsibility to pick up handouts, solutions, and homework assignments when they are passed out in class. Professor Silio will not retain copies after the class in which the handout is passed out. If you must miss class, make arrangements with a reliable classmate to pick up a copy of the handout material for you; or make arrangements with other classmates to photocopy theirs.
- A **course ftp web site** will be maintained (URL: **http://www.ece.umd.edu/class/enee350-1** under (Summer 2008); AFS directory: /afs/glue/deparment/enee/public_html/class/enee350-1.Sum2008) which contains information, notes, software documentation, homeworks, and some of the handouts. If you miss class, you may be able to find the missed handout here in either postscript or pdf format.

Reminder about Academic Integrity

- Academic dishonesty will not be tolerated. The University Code of Academic Integrity, which can be found at http://www.inform.umd.edu/CampusInfo/Departments/JPO/
  prohibits students from committing the following acts of academic dishonesty: cheating, fabrication, facilitating academic dishonesty, and plagiarism. Academic dishonesty in this class includes outright copying on homework; however, discussing homework problems and exchanging tips is permissible and also encouraged. If there are any take-home exams, discussing the material with anyone other than privately with the instructor, inside or outside of the class, is considered academic dishonesty. Instances of academic dishonesty will be referred to the Office of Judicial Programs.

Recommended Study Habits

- Read the specified sections of the book or supplementary notes before class.
- Attend lecture, pay careful attention, and take written notes.
- After lecture recopy your notes, and study the reading assignment.
- Start on the homework problems early and take advantage of office hours. Do not fall behind!
- This course requires 3 hours of work (reading, doing homework, writing and debugging programs) per lecture hour; so you can expect to be devoting 22 to 25 hours per week to this class (including class lecture time).