State University of New York at Albany
ACC 681. Accounting Information Systems (Fall, 2006)
Class Time: M 5:45-8:35 PM; Room: BA223

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Office: BA 365 C
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Office Hours: M 3:30 – 5:30 or by appointment
Class Page: tbd

0. MESSAGES FROM THE CLASS OF FALL 2000
• "10+ hours of work per week. One programming homework every week."
• ". . .If someone loses his interest in the program, any warning won't be effective. I suggest doing a review for the whole
course in the first class to alert students what they will learn in the semester. Show them some codes as example."
• "Challenge yourself with lots of homework. Do you want to know what your potential ability is?"
• "Assignment small. Effort huge!! We are not MIS majors any more. Now our concentration is JAVA."
• "This course requires an extreme amount of patience because spending 10+ hours does not guarantee that expected results
will be achieved. It is extremely important to get a solid start in this course as soon as it begins."
• "10+ hours of struggling and suffering, and 10- minutes of excitement & happiness."
• "10+ hours of work is not quite concise. 30+, 40+ would be more descriptive."
• "Loss of confidence in myself. Extremely frustrating."
• "Achieve a lot, or lose everything."
• "You will not have much time to concentrate on other courses!!!
• "Although you believe that you understand the contents of the textbook, it doesn't mean that you can solve the problems in
the test."
• "Less time to prepare for other courses. A lot of benefits though. Very challenging!!"
• "The final individual project is another extreme workload to the beginner programmer. The programming project is tough
and challenging to each student."
• "This course is tough. You might never imagine. However, many students took this course until the end, and certainly
appreciate the hardworking time."

1. WELCOME

AICPA’s General IT Education Requirements No. 12: "All professional accountants, irrespective of their
primary work domain or role, must acquire both relevant theoretical knowledge and practical IT skills.
The essential body of knowledge of the accounting IT is represented by the following basic content
categories: (1) Information technology concepts for business systems, (2) Internal control in computer
based business systems, (3) Development standards and practices for business systems, (4) Management
of information technology adoption, implementation, and use, and (5) Evaluation of computer based

In this course, we will study the analysis, design, development and implementation of accounting systems.
Principles of object-oriented systems will be introduced. The course will be a healthy mix of theoretical, applied,
and hands-on materials. We will study the subject matter through the use of UNIX operating system with
programming in the Java programming language, which is very popular especially in the context of web-based
systems.

To help you understand fundamental systems concepts, this course will in general use a command line approach.
We will learn using the emacs/vi editors, using the javac compiler, and developing simple java applications.
Graphical User Interfaces (GUI) will be introduced after the students have acquired the fundamental systems
concepts. A good resource for VI is http://www.eng.hawaii.edu/Tutor/vi.html.

This course is rigorous, but your efforts will be rewarded. Knowledge of the materials covered in this course should
amply increase your competitiveness in future professional careers in accounting, auditing, and information systems.

This course has a strong systems flavor. Weekly programming exercises will be used to reinforce systems concepts.
Programming skills will be tested in the exams. To do well in the AIS concentration, you should take the
programming assignments in this class VERY seriously, since writing programs is the only way to learn
programming. You are strongly encouraged to try out additional programming exercises and select a project that
requires intense programming. Remember that I am here to help you learn.
2. LEARNING OBJECTIVES
At the end of this course, you should be able to:

- Integrate technological perspectives into decision-making processes;
- Manage assigned tasks to meet deadlines in developing and maintaining business systems;
- Understand the functions of accounting information systems, and the interrelationship among hardware and software components of such systems (NSA 4001 Requirement B);
- Solve business problems by writing programs to manage and analyze quantitative data;
- Develop specifications for accounting information systems, and implement them in Java and UNIX scripts;
- Understanding in-depth Object-Oriented methods for systems development;
- Communicate intelligently with systems professionals.

3. REQUIRED TEXT BOOK
Java Software Solutions: Foundations of Program Design, 5/E  Publisher: Addison-Wesley
Check Web site accompanying the textbook at http://duke.csc.villanova.edu/jss1/

4a. RECOMMENDED REFERENCES
Ellie Quigley, UNIX Shells by Example
Roberts, Tuck, Heller, Complete Java 2 Certification Study Guide
A.A. Arens & D.D. Ward, Systems Understanding Aid

4b. OTHER USEFUL REFERENCES
David Flanagan & Paula Ferguson (Editor), Java in a Nutshell: A Desktop Quick Reference
Harvey Deitel, Paul Deitel, Java How to Program
Bruce Exkel, Thinking in Java

5. ONLINE RESOURCES
Official Java sites http://java.sun.com/
The above is the official java site linking to resources such as java products and tutorials.
http://java.sun.com/j2se/1.4/docs/api/
This site is the most important to Java learners. It contains the full, constantly undated Application Programming Interfaces (APIs) that describe all standard java packages, classes, and methods.
UNIX Tutorials http://www.utsc.utoronto.ca/~szamosi/b09/tut.shtml
HTML Tutorial http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html
Textpad Editor www.textpad.com

6. COMPUTER ACCOUNT & FACILITIES
For information on obtaining a UNIX account, please visit:
http://www.albany.edu/its/new_students/accounts_email.html
The class newsgroup (sunya.class.acc681) will be extensively used for announcements regarding tests, homework, quizzes, added links to this course homepage, etc. The newsgroup is the primary means of communication outside of the class. You should communicate with me via e-mail only for personal questions. You should post to the newsgroup all other questions. You are strongly encouraged to answer queries posted by others, and such responses will count towards class participation points for grading. You will learn important teamwork skills from participating in this virtual classroom.

Subscribe to the newsgroup sunya.class.acc681 through pine. Choose FOLDER LIST and go to News-Collection section. Use the (a)dd command to subscribe for sunya.class.acc681. Read and respond to messages in newsgroup as if they were emails.

You can work on any computer linked to the machine cayley.bus.albany.edu in the Accounting Lab at Room 363. This machine can be accessed via xwin-32 in the lab, or remotely through telnet.

7. COURSE CONDUCT
The course will consist of lectures, programming assignments, an individual project (with project presentation at semester end) where you will design and implement part of an accounting system. Any programming based course, of necessity, is time-consuming and requires you to be well organized. Late homework submissions are not acceptable.

Grading
You will be arranged in descending order of total points scored. Gaps in that order will form the cut-off points for letter grades, including +/- grades, assigned in the course. The letter grade for each student is therefore determined relative to the rest of the class.

240 points: assignments
100 points: Project and Presentation (proposal constituting 2 out of 20 points due Oct 20)
60 points: Class Participation and Quizzes
50 points: Test I
50 points: Test II
500 points: Total (max 500 points)

Home Work Assignments
Homework will be assigned every week. Such homework must be done *individually*. While you are welcome to discuss with anyone, the submitted homework must faithfully represent your *own* work. Homework is due and will be collected at the beginning of class. Late submissions will not be evaluated. Missed homework also cannot be made up. Homework submission must be in printed hardcopies to facilitate grading. As far as I know I will not have a TA or a GA so all questions will have to go through me or through your classmates.

Individual Project & Presentation
The individual project will consist of designing & implementing a part of a small accounting system. You may optionally refer to the packet entitled Systems Understanding Aid. The programming part of the project must be undertaken using the Java programming language. You will be graded on the basis of the quality of specifications of the accounting system that you design, describe, and implement. A written project report (design, description, and codes) is due on the data of presentation. Presentation includes project description, code explanation, & program demonstration.

Tests
Two tests will be conducted during class time. These tests will examine your understanding of lecture materials and homework as regards systems design and implementation, object-oriented concepts, the Java language, and related concepts. Test materials include, among others, lectures, textbook, homework description, homework exercise, discussions on the class newsgroup, and course syllabus.

Class Participation & Quizzes
I will ask you questions in the class. You are strongly encouraged to participate in class discussions. Quizzes, if and when given, may be at any time.
## 8. TENTATIVE SCHEDULE

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<thead>
<tr>
<th>Date</th>
<th>Lecture</th>
<th>Chapters</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>Sep 11</td>
<td>Number Systems</td>
<td>Appendix B</td>
<td>number system &amp; program flow chart (due Sep 18)</td>
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<tr>
<td></td>
<td>Unicode Character Set</td>
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<td>apply for UNIX account</td>
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<td>Java Class Library</td>
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<td>Program flowchart</td>
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<td>Internet, UNIX, emacs and vi</td>
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<tr>
<td>Sep 18</td>
<td>Internet, UNIX, emacs and vi</td>
<td>1, 2</td>
<td>download &amp; install jdk1.5</td>
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<td><a href="http://java.sun.com/j2se/1.5/docs/api">http://java.sun.com/j2se/1.5/docs/api</a></td>
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<td>UNIX shell scripts (due TBD)</td>
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<td>Sep 25</td>
<td>Chapters 1-3</td>
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<td>Oct 9</td>
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<td>Oct 23</td>
<td>Test I</td>
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<td>Sep 11 to Oct 16</td>
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<td>Chapter 12</td>
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<td>Dec 4</td>
<td>Project Presentation</td>
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