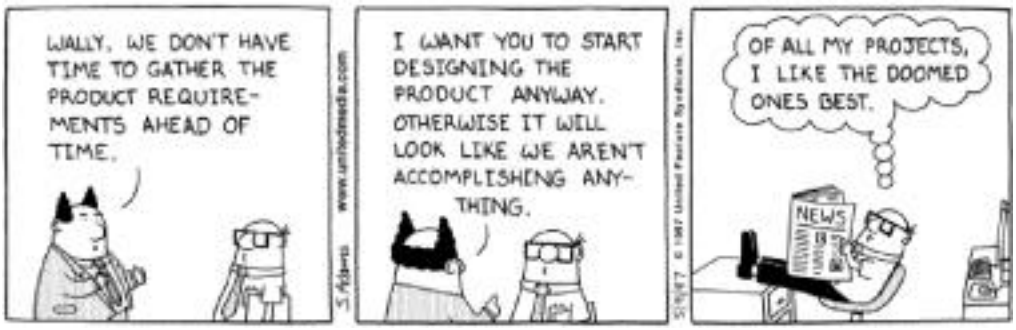

INFO 361: Course Syllabus

Name	Sect.	Ref. #	Time	Day(s)	Room	Building
Systems Analysis and Design	E02	12542	7:00 - 9:40 PM	Tuesdays	3142	Business Building

Instructor

Peter Aiken. I received my doctorate in Information Technology from the George Mason University, School of Information Technology and Engineering in 1989. The school used the following definition of information technology:

Information Technology is a discipline that encompasses the design, development, and application of hardware and software systems to facilitate human endeavors.

Contact


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-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
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 not my:Yesterday is history, Tomorrow is a mystery and
  quote:Today is a gift - that's why it's called the Present
-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-
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Electronic

peter_aiken@bigfoot.com
http://fast.to/peteraiken

- If you fax me any material please call and leave me a message so I can be certain to separate your fax from the others in the in-box.
- My office phone rolls over to voice mail after three rings - you can always leave a message there for me. I check my messages regularly, especially when I'm traveling, and I will return your call.
- I spend about 50% of my research time working at my home office, please feel free to try to contact me there. At home I often hide from sales calls behind the answering machine. If you get the answering machine, press and hold any key on

your touch-tone phone to by-pass the recorded message and please announce yourself. If I'm there, I'll pick up unless I'm attempting deep concentration. Regardless, please leave me a message - I will return your call.

- I'm often required to travel and when I do I leave this information on my office answering machine.

- This semester I'll usually be spending approximately two days each week in New York City where I'm working on sponsored research with Deutsche Bank.

Office Hours My office hours are before my classes from 4:00-7:00 PM and other times by appointment. In addition to my regularly scheduled office hours, I'll stick around as long as required after the evening class to answer any questions.

Schedule My class schedule for the Fall 1999 semester is INFO 463 on Mondays and INFO 361 on Tuesdays. Both classes are from 7-9:40 PM.

Prerequisites Satisfactory completion of BUS 360 and junior standing are required.

Catalog A survey of legacy system reengineering technologies in which the student becomes familiar with a variety of tools used in practice and has the opportunity to develop applications using these tools under supervision. Selection of technologies is determined each semester.

Content This course delivers understanding of the concepts, tools, and techniques used to determine and specify the requirements of computer-based systems under development. It equips students with a comprehensive set of analysis skills and techniques derived from successful and progressive, real-world system development practices.

Analysis skills and techniques are used to define **what** the system is to accomplish.

In contrast ***design*** activities - the "next" phase of systems development - define **how** the system is to accomplish its objectives.

Additional topics covered include

- business systems
- structured analysis problem-solving approaches
- logical and physical process and data modeling
- computer assisted software engineering (CASE)
- aspects of project planning/management;
- data and metadata collection;
- communication skills;
- feasibility analysis.

Objectives

Successful completion of this course will enable students to:

1) Describe the essential characteristics of complex systems.
2) Describe the life cycle of a successful information system.
3) Define the purpose and importance of the analysis phase of information system development and of functional specification.
4) Describe the tasks of the system analysis and the skills required to perform them.
5) Effectively use data gathering techniques available to the analyst.
6) Describe the logical flow of data within an information system.
7) Develop process and entity relationship diagrams for proposed systems.
8) Describe the steps required to perform a cost/benefit analysis for a proposed information system.
9) Prepare a finalized systems proposal.
10) Understand the role of computer assisted software engineering (CASE) tools in the analysis process and in the development of functional specifications.

Grading

Your grade for the course will come from the following combination of assignments and exams:

Exams	40%
Assignments	20%
Systems Development Project Components	40%

Each project, assignment, test and the final examination will be allocated a letter grade, possibly with a plus or minus. The final grades will be determined by computing a weighted average from these grades, using a four point scale (A = 4 points, B = 3 points, C = 2 points, D = 1 point; a plus increases and a minus decreases the points by .3). Final grades will follow the standard 10 point grading scale (A = 90 and above, etc.).

In order to get a passing grade in the course, a student must achieve a C average for the exams, and must have completed all assignments and the project satisfactorily; further, the course grade may not exceed the grade for exams or the project by more than one letter grade.

Records

Students must keep copies of all assignments and other work submitted (hard copy or disk). In the unlikely event that a submitted assignment is lost before it has been graded, the student must be able to produce a copy within one day. Graded work that has been returned to the student should also be kept until the final grade for the course has been received. In the case of team assignments, each team member should keep individual copies of all work.

Attendance You are responsible for all material discussed in class. If you must miss class please have someone take notes and get materials for you. Some of the material covered on the exams is not in the text. Project deliverables and assignments must be turned in at the beginning of class on the assigned dates, late work will not be accepted. You must be present for the scheduled exams!

Texts David Brown ***An Introduction to Object-Oriented Analysis: Objects in Plain English*** Wiley 1997 ($82.40 at Amazon.com).

Terry Quatrani ***Visual Modeling with Rational Rose and UML*** Addison Wesley 1998 ($39.95 at Amazon.com).

Supplemental as assigned.

Required Fine Print (Fall Semester)

Religion Friday, September 10th is the deadline for students to provide advance written notification to instructors of intent to observe religious holidays

Graduation Friday, September 24th is the last day for fall degree candidates - to submit graduation applications to you advisers for December degrees.

Withdrawal Friday, October 22nd is the last day to withdraw from a course with a mark of "W".

Disabilities Students with special requirements must inform the instructor of these within the first two weeks of the semester. Also, in order to receive special considerations, the University Office of Academic Support must certify these requirements.

Weather If classes are canceled due to inclement weather, any scheduled tests or assignment due dates will be automatically moved to the next regular class meeting.

Ethics Students must abide with the University computing ethics policy.

Holidays "It is the policy of VCU to accord students, on an individual basis, the opportunity to observe their traditional religious holidays. Students desiring to observe a religious holiday of special importance must provide advance written notification to each instructor by the end of the second week of classes. Instructors are encouraged to avoid scheduling on these dates one-time only activities which cannot be replicated. Faculty members are expected to make reasonable accommodations to students who are absent because of religious observance through such strategies as providing alternative assignments or examinations or granting permission for audio or video recordings and the like."

Honor Code All submitted work is considered "pledged" according to the VCU Honor System. Cheating and plagiarism are unacceptable and will be handled in accordance with the Academic Integrity Policy as specified in the ***VCU Resource Guide***. Except in those cases where teamwork has been expressly permitted all work must be done individually by each student.

Tentative Baseline Schedule

Week	Date	Text	Chapters	Class Focus
1	8/31/99			Course Overview
2	9/7/99	OOA	1-2	Introduction – Systems Development Crisis
3	9/14/99	OOA	3	Models and Modeling / ***House of Structure (handout)***
4	9/21/99	OOA	4	Data-oriented Models ***Zachman Framework (handout)***
5	9/28/99	OOA	5-6	Objects & Classes – OO Development Cycle ***DeMarco Stevens Lecture (download from website)***
6	10/5/99			☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ***Mid-term Exam!***
7	10/1299	OOA	7, 17	Requirements Modeling – Example ***Use Case Modeling (handout)***
8	10/19/99	OOA	16, 8	People Side - Object & Property Classes (Battle of the Modeling Techniques By Warren Keuffel - ***DBMS***, August 1996)
9	10/26/99	OOA	9	Finding Object & Class in the real world
10	11/2/99	OOA	10	Object States
11	11/9/99	OOA	11	Responsibilities and Collaborations
12	11/16/99			☞ ☞ ☞ ☞ ☞ ***Project Workday – No Lecture!***
13	11/23/99	OOA	12	Subsystems
14	11/30/99	OOA	13	OO Design
15	12/7/99	OOA	14-15	Implementation - Techniques
16	12/14/99			☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ☞ ***Final Exam!***