



Name	Sect.	Ref. #	Time	Day(s)	Room	Building
Topics: Data Management Maturity	901	10888	6:00 -8:40 PM	Mondays & Wednesdays 5/29 – 7/17	4115	Business Building

Prerequisite Prerequisite: You will get the best learning experience if you have successfully completed BUS 464 or an equivalent course, or have permission of the instructors.

Catalog Semester course. 3 lecture hours. 3 credits.
This is a topics course - there is no catalog description.

Description This course will investigate data management with respect to its disciplinary maturity and its practice. It will be comprised of several foci that together will illustrate data management state-of-the-practice. Several graduate students will also participate in the project. Students will participate in the study of Data Management as applied to:

- Data Program Management
- Enterprise Data Engineering
- Data Stewardship
- Functional Data Engineering
- Data Operations

Specifically all students will be evaluated according to the following deliverables and contributions as specified under [Deliverables](#).

INFO 491 Syllabus

VCU

Virginia Commonwealth University

Intranet <http://dataresearch.intranets.com> (Bookmark it!)

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 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.
- This semester I'll usually be spending approximately two days each week as I travel supporting sponsored research for VCU and the Institute.

Burt Parker President: Paladin Integration Engineering, Arlington, VA and formerly with The MITRE Corporation's Software Engineering Center. Mr. Parker has an M.B.A. in Systems Analysis (General Systems Theory), from the University of Michigan. He has a B.S in Engineering Science (Electro-mechanical Engineering) from the University of Rhode Island and is also a graduate of the U.S. Army Command and General Staff College. He has been active in DAMA and DAMA International for many years. He is also active in ANSI and ISO standards committees relating to metadata management (ANSI NCITS L8, Metadata; and ISO Technical Committee 204, Transport Information and Control Systems, Working Group 1, System Architecture).

Contact parkerbg@mindspring.com
<http://www.PaladinIntegrationEngineering.com>

Grading Grades will be determined by your demonstrated participation in the course and evaluated against your specific analyses and group deliverable contributions.

<u>Component</u>	<u>Points</u>	<u>Percent</u>
IA-1	15.....	15.00%
IA-2	15.....	15.00%
IA-3	15.....	15.00%
IA-4	15.....	15.00%
<u>Participation/Contribution</u>	<u>40</u>	<u>40.00%</u>
Total	100.....	100.00%

Attendance You are responsible for all material discussed in class.

Deliverables There will be four individual deliverables and at least four possible opportunities to make tangible contributions to the group deliverables. The specific deliverables are listed below:

Individual Analyses	Contributions toward Group Deliverables
IA-1. Reassessment of the Data Program Coordination component of the survey of data management practices;	GD-1. Contribute a improvement that leads towards enlightening the group's collective understanding of the Data Program Coordination survey component – based on meta-analysis of the collective IA-1 deliverables;
IA-2. A survey of data management practices assessing a number of organizations practices based on personal analysis of at least five (likely local) data management practices – reported according to a proposed DMM Framework;	GD-2. Contribute a cause, consequence critique, insight, or reason to the group understanding that represents a new look at or contribution towards our understanding of DMM Framework based on meta-analysis;
IA-3. Development of a method of integrating disparate survey data;	GD-3. Contribute to storyboard, group prototype XML demos
IA-4. Analysis of the newly combined survey data.	GD-4. Contribute to publicly accessible group prototype XML demos.

Please note that:

- Deliverables will typically be presented during structured meetings typically as PowerPoint presentations – these workgroup sessions require advanced preparation in order to be truly effective – please ask questions to be as prepared to contribute to and benefit from these sessions.
- Individual analyses may be distributed via the class intranet website.
- Your participation grade will consist of partial self-rating, partial peer rating, and partial instructor rating.
- While it is not required to contribute to each class meeting, failure to contribute substantively to the overall process will negatively impact your participation grades.
- Extra credit available is available upon request.

Office Hours Our office hours are before classes from 4:00-6:00 PM and other times by appointment. In addition to regularly scheduled office hours, we'll stick around as long as required after the evening class to answer any questions.

Schedule Our class schedule for the Summer 2002 semester is INFO 491 on Mondays and Wednesdays. Classes are from 6-8:40 PM.

Texts A variety of chapters and readings will be accessed during this class. Some will come from the following:

Guidelines to Implementing Data Resource Management by DAMA International Paperback - 359 pages (March, 2002) DAMA International; ISBN: 0-9676674-1-0 ([\\$100 at amazon.com](#)).

Parker, B., Enterprise-wide Data Management Process Maturity Framework, *Handbook of Database Management*, Auerbach, 1999.

Parker, B., A Framework for Enterprise-wide Data Management, proceedings: *Zachman Institute for Framework Advancement (ZIFA) Forum*, 1998.


John Zachman "A framework for information systems architecture" *IBM Systems Journal* 26(3):276-292.

Required Fine Print (Summer)

Religion Friday, June 8th is the deadline for students to provide advance written notification to instructors of intent to observe religious holidays

- Graduation** Friday, June 29th is the last day for Fall degree candidates - to submit graduation applications to you advisers for December degrees.
- Disabilities** Students with special requirements must inform the instructor of these within the first two weeks of the semester. The University Office of Academic Support must also certify these requirements in order to receive special considerations.
- 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 one-time only activities, which cannot be replicated, on these dates. 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 Schedule: The following work plan will comprise our semester of study.

Week/Class	Date	Leader	Class Focus
1/1	5/29	Burt Parker	1. Introduction Course Overview 2. What is a framework? 3. Role of Maturity Models 4. Data Management Maturity Framework
2/2	6/3	Peter Aiken	1. Introducing Data-Centric Data Management 2. (About) Structured Meetings
2/3	6/5	Peter Aiken/ Angela Mattia	1. Reassessment Data Program Coordination component 2. XML: An Introduction 3. Architecture & the Zachman Framework
3/4	6/10	Burt Parker	1. Data Management: Part 1 2. Workgroup Sessions
3/5	6/12	Peter Aiken	1. XML & Data Management 2. Preparation: DM3 Structured Interview
4/6	6/17	Peter Aiken/ Angela Mattia	1. Deliverable: IA-1 Data Program Coordination Reassessment 2. Deliverable: GD-1 Enlightening the group's collective understanding of the Data Program Coordination 3. XML & Metadata Management
4/7	6/19	Burt Parker	1. Data Management: Part 2 2. Workgroup Sessions
5/8	6/24	Burt Parker	1. Deliverable: IA-3 Survey Data Integration Plan 2. Data Management: Part 3 3. Workgroup Sessions
5/9	6/26	Burt Parker	1. Data Management: Part 4 2. Workgroup Sessions
6/10	7/1	Peter Aiken	1. Deliverable: IA-2 DM3 survey results 2. Deliverable: GD-3 Group storyboard XML demos
6/11	7/3		 Holiday Break!!!
7/12	7/8	Burt Parker	1. Data Management Part 5 2. Workgroup Sessions
7/13	7/10	Burt Parker	1. Deliverable: GD-2 DM3 Meta Analysis 2. Data Management Part 6 3. Workgroup Sessions
8/14	7/15 (alternatively) 7/22	Peter Aiken	1. Deliverable: IA-4 New analysis of combined survey data 2. XML Capabilities Discussion
8/15	7/16(alternatively) 7/24	Peter Aiken	Deliverable: GD-4 Final presentation of publicly accessible group prototype XML demos

Readings in *Guidelines to Implementing Data Resource Management* (Chapter/Author):

Data Program Management

CH 1: Data Resource Management/DAMA Chicago
CH 2: Sample Charter/Mission Statement/Anne Marie Smith & DAMA Chicago
CH 3: Goals, Objectives, and Critical Success Factors/DAMA Chicago
CH 4: Benefits of Data Resource Management/Kathy Sivier
Enterprise-wide Data Management Process Maturity/Burt Parker
The Framework for Enterprise Architecture/John Zachman
The Role of the Data Administrator and the Internet/Clive Finkelstein
Data Resource Management Job Descriptions/DAMA Chicago

Enterprise Data Engineering

Data Management and the Internet/Attila Finta
XML and Common Name Sharing/Gill & Smilg
Change Management Consideration/John Zachman
Data Sharing/Michael Brackett
Business Rules/Keri Anderson Healy
Process Modeling/Brett Champlin
Data Modeling Fundamentals/Deborah Henderson & DAMA International
Building the Meta Data Repository Plan/Marco
Data Warehousing Overview/Warren Cotton
Data Warehouse Management/Data Mart Modeling Guidelines/Patricia Adrian

Data Stewardship

Information Stewardship/Larry English
Seven Habits of Highly Effective Data Modelers/Moody
The Concept of Data Resource Data/Brackett
Total Information Quality Management/English
Data Naming Standards/Newton

Functional Data Engineering

Data Security/Allen & Danielsen
Building a Business Rules System/von Halle
XML Portals as EAI Components/Aiken
Tool Evaluation/Eidson & Nolan
Data Architecture Roles in Purchased Package Environments/Nelson & Davey
Repository Management/Adderson

Data Operations

Managing Data Disparity/Brackett

Managing Reference Data/Zaborsky

Measuring The Value Of Information/Moody & Walsh

The Future of Data Resource Management/Brackett