

PSC 511-C

Problems in Public Management:
Information Technology and
Management
Fall Session, 2009
Tuesdays, 17:50-18:50 (5:50-6:50)
Room 209 Graham

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SYLLABUS**I. Focus of Course**

This course is an introductory course on information systems in the public sector. The course will focus on specific technologies and applications prevalent in public organizations and issues associated with management of information technology.

While several of the assignments will require students to use computer software, the emphasis in this course is not on teaching individuals how to use the computer. Rather, the course will prepare current and future public managers with a foundation for understanding information systems in the public sector.

The primary goal of this course is two fold. First, the course will develop student competencies in:

- Oral communication via regular participation in class discussion and a project presentation;
- Written communication via written assignments; and,
- Research and problem solving via reviewing current literature and its application to understanding the challenges of information systems.
- The course will also provide students an opportunity to assess their own personal computer skills through assignments that require use of basic applications such as word processing, spreadsheets, presentation and database programs.

Second, the course expands upon the student's knowledge of issues surrounding management of information systems. Upon completing the course, the student will have a good understanding of the subject matter including:

- The basic building blocks of managing information systems (i.e., hardware, software, data and application development);
- The application of this technology to meet a public organization's operational needs (i.e., eGovernment, ERP, GIS and the like); and,
- Insights into the organization structure for delivering information systems.

Some basic computer skills are required for this course. Students should enter the course with a working understanding of word processing, spreadsheet and presentation software within a Windows environment. Students who have a great deal of familiarity with computers should still find this course useful because of the emphasis on the broader questions of computer use and implementation.

This course attempts to survey a wide range of topics and therefore does not cover any particular topic in great depth. The emphasis is on introducing students to a broad spectrum of materials, raising a variety of questions, and indicating how students can pursue specific subjects in more detail. The written and group assignments for the course are structured to allow students to focus their attention on the topics of greatest interest and relevance to them.

This course is designed for students in the MPA program, but it may be suitable for other graduate or advanced undergraduate students with a strong interest in the subject matter of the course. Those not in the MPA program who wish to enroll in the course should consult the instructor.

II. Readings

No textbook is required for this course.

Readings have been assigned from the following books and periodicals (all on library e-reserve):

Breeding, "Introduction to Web Services," *Library Technology Reports*, May/June 2006, Volume 42, Issue 3

Carr, "Geographic Information Systems in the Public Sector," *Public Information Technology: Policy and Management Issues*, G David Garson, Editor (Idea Group Publishing, 2007)

Holtznider, et. al., Chapter 12 Networking, *IT Manager's Handbook, 2nd Edition*, (Morgan Kaufmann Publishers, 2007)

Hvalshagen, "Transforming the IT Organization for the State of Virginia," *Information Systems Management*, Fall 2004 (Auerbach Publications, Inc.)

Kock, "Business Process Modeling Approaches and Diagrams" (Chapter 5), *Systems Analysis and Design Fundamentals*, (Sage Publications, 2007)

Schelin, "E-Government: An Overview," *Public Information Technology: Policy and Management Issues*, G David Garson, Editor (Idea Group Publishing, 2007)

Turban, et. al. Chapter 2. Technology Guide: Software. *Information Technology for Management, 4th Edition*, (John Wiley & Sons, 2004)

Turban, et. al. Chapter 3. Technology Guide: Data and Databases. *Information Technology for Management, 4th Edition*, (John Wiley & Sons, 2004)

Wagner, et. al., "The ImaginePA Project: The First Large-Scale, Public Sector ERP Implementation," *Information Systems Management*, Volume 26, pp 275-284

III. Assignments and Grading

Your grade in the course will be based on the following assignments:

1. A business process diagram and one page narrative summary that communicates the manner in which an organization executes a specific business function. Details on this assignment will be distributed separately. This diagram is due September 29th.
2. A paper and associated PowerPoint presentation (no presentation required) addressing a challenge for information management in public organizations. Examples might include retaining qualified staff, work-from-home practices, seeking grant funding, developing volunteer staff computer skills and the like. Students are encouraged to select a topic that will compliment an interest they have in this area. The topic chosen must be different than your group's assignment. This paper and an associated PowerPoint file are due October 27th.
3. A Decision Support model using MS-Excel and short narrative summary. Details on this assignment will be distributed separately. The model is due November 17th.
4. A group project that includes the submission of a collaborative paper and class presentation discussing an emerging technology that is likely to impact public organizations (topics to be provided by the instructor unless otherwise determined). Details on this assignment will be distributed separately. Paper and presentation are due on various weeks during the last half of the course.

Class participation also will be an important component of this course. You will be expected to discuss the assigned readings and your experiences as they relate to the subject matter.

Grading:

1. Business process diagram	20%
2. Information Management challenge paper	20
3. Decision support model	20
4. Group Project	20
5. Class participation	<u>20</u>
	100%

Research sources:

Your paper and group project will require you to use diverse research sources. You should use the required readings as a starting point. They should give you important background information. You undoubtedly will have to rely on recent articles, which could be located in any number of publications and periodicals. I assume that all of you are familiar with the electronic search options available through the Jackson library web site and are comfortable in using them; if not, you should consult with one of the reference librarians. In some cases you can get the full text of an article, but in other cases only titles or abstracts are available. Additionally, you should consider interviewing experts in the local area for information, especially if your research topic is a case study involving a local government or agency.

Computer Skills:

This course is not intended to provide students with hands-on training on computer software. However, several of the assignments require student's to provide a working digital copy of their completed assignment and a portion of the student's grade will include an assessment of how relevant software was used. For example, completion of the assignment on Information Management challenges includes submission of both the MS-Word paper and an associated PowerPoint presentation. One aspect of grading of this assignment will be how you used these software packages.

If you believe that you require assistance in developing your computer skills, a number of University resources are available to you.

Criteria for Grading Papers:

When grading the two papers (one individual and one group) I base my evaluation on a number of factors. First and foremost, papers should be written with an audience in mind. In crafting your papers presume that this report is going to be delivered to the manager of a public agency who needs to be more informed on your topic. Assume that your reader is faced with a policy issue or possible application of the technology and is relying on your research to guide his decision. Be sure to adhere to this requirement. If your paper is not clear, concise and informative for this audience, then it is not a good paper.

More specifically, papers are evaluated on five characteristics:

- **Appropriate Topic (20%).** The topic/issue discussed in the paper should be consistent with the scope of the assignment. To get the full 20 points, the paper must be on target with the assignment. If you are unsure if your topic meets that requirement see me.
- **Depth (20%).** The paper should do more than simply regurgitate what you read. I am not looking for a book report. To get the full 20 points, the paper should display originality of thought, depth of analysis and/or synthesis of competing ideas.
- **Organization and readability (20%).** The paper should have a clear introduction that alerts the reader to what is coming, a body that communicates the material and a summary that wraps up the paper's contents. The paper should be concise, flow logically between topics and hold the reader's interest.
- **References (20%).** The paper should draw from a range of quality references that support the message of the paper.
- **Computer Application Proficiency (20%).** See below.

Footnoting should follow the style that you are comfortable using and appropriate for academic research. Please include a title page with room for comments.

Criteria for Grading Application Assignments:

The digital version of your assignment should demonstrate a basic understanding of the computer programs used. Each assignment will require that you exercise several aspects of the software. I evaluate each application on:

- **Required Functionality (75%).** To get the full 75 points, all of the assignment's required functionality is present. For example, in the decision support model application (using Excel), students must show that they can enter the specified formulas, present the results in a chart, format text and the like.
- **Presentation Quality (25%).** Presentation of output via tables, slides, etc. must be clear, concise and convey the desired information. Remember that this is a business presentation, excessive animation, blinking text and other distractions will detract from this aspect of the grade.

Assignment Tardiness:

Assignments are due on time. Unless you have made prior arrangements with me regarding alternate due dates, late assignments will be penalized for tardiness.

IV. Outline of Topics and Reading Assignments

This course will meet Tuesday evenings from 5:50 to 6:50 in Graham Building, Room 209.

8/25 Introduction/Course Information

Required reading: None

9/01 Information System Defined and Trends of Computing

Required reading: None

In class exercise: Case Study: Step 1 – Statement of Work

9/08 Business Process Review

Required reading: Kock Chpt 5 (Systems Analysis and Design Fundamentals)

In class exercise: Case Study: Step 2 - Business process definition

9/15 Data & Databases

Required reading: Turban T3 (IT Management: Data and Databases)

In class exercise: Case Study: Step 3 – Data Entity Diagram

9/22 No Class (MPA Internship Meeting)

9/29 Application Development

Required reading: Turban T2 (Software part a & Software part b)

In class exercise: Case Study: Step 4 – Application Development (VB.NET)

Assignment Due: Business Process Diagram

10/06 Integration/Web Services/Networks

Required reading: Breeding (Introduction to Web Services)

Group Presentation: Group #1

10/13 Break

- 10/20 Organization & MIS Structure**
- Required reading: Hvalshagen (Transforming IT for the state of VA)
- Group Presentation: Group #2
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- 10/27 eGovernment**
- Required reading: Schelin (e-Government Overview)
- Group Presentation: Group #3
- Assignment Due: Information Management Challenge Paper and PowerPoint
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- 11/03 Enterprise Applications: ERP/Imaging/Asset Management/Decision Support**
- Required reading: Wagner (ImaginePA ERP Project)
- Group Presentation: Group #4
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- 11/10 No class** (Alumni Careers Pizza Night)
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- 11/17 GIS Concepts**
- Required reading: Carr (GIS in the Public Sector)
- Group Presentation: Group #5
- Assignment Due: Decision Support model (Excel)
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- 11/24 GIS Exercise "Who's using the library for free?"**
- Required reading: None
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- 12/01 Class wrap-up**
- Required reading: None