

Syllabus: Information Systems in Educational Management

Spring Semester 2007



General Information

Course: Information Systems in Educational Management (703/706-615-01,706-715-01)

Instructor: Benjamin F. Baab, EdD (e-mail: baab@usfca.edu)

Location: ED 010, lower level, School of Education

Course Web Site: <http://blackboard.usfca.edu>

Lectures, Discussions, Presentations, and Hands-on Sessions:

Introduction on Saturday, January 20th, 9-10:30am; then, every other Friday, 5:30-9:45pm, see calendar for days

Office hours: Tuesdays 3:30-4:30 in ED319 or by appointment



Course rationale and objectives:

Examination of the uses of information in the management of educational institutions and issues administrators face in the management of this information, including collection, storage, and dissemination. Focuses on integration and communication of information for decision-making. Includes an introduction to validity and reliability in tests and measurements; use of specific tools, such as school schedulers and student records; and human, technological, and legal issues in sharing information. Students will work in teams to develop "hands-on" projects. Prerequisite: Ability to use a personal computer for word processing, web browsing, and e-mail. Database examples will use MS Access and OpenOffice.org Base.

Upon completion of the course, you will be able to:

- define an information system, identifying data elements and processes, system components, audiences and their information needs
- construct and demonstrate a prototype information system component, explaining its use and including appropriate training materials based on a needs assessment
- outline a system-selection process and identify human issues affecting the implementation, acceptance, and use of an information system
- analyze and evaluate commercial information systems and present a technical overview appropriate for a non-technical audience

- identify recent research, industry trends, and issues, especially legal requirements, security, privacy, data reliability and validity, equity, and access, and analyze the role of each in school-related decision-making
 - collect and synthesize information-system observations and relate the observations to school administration and instructional issues
-



Required Texts:

Brooks-Young, S. (2002). *Making technology standards work for you: A guide for school administrators*. Eugene, OR: International Society for Technology in Education.

Davenport, T. H., L. Prusak (2000). *Working knowledge: How organizations manage what they know*. Boston, MA: Harvard University Press.

Recommended Additional Reading:

Becta. (2006). *The Becta review 2006: Evidence on the progress of ICT in education*.

Coventry, UK: Author. Retrieved January 2, 2007, from

<http://publications.becta.org.uk/download.cfm?resID=25948>

Passey, D. (2002). *ICT and school management: A review of selected literature*. Retrieved January 2, 2007, from

http://partners.becta.org.uk/page_documents/research/ict_sm.pdf

Rose, M., & Yang, D. (2004). *Keeping information safe: An exploration of teacher practice and perceptions in K-12 schools* (CERIAS Tech Report 2004-28). Retrieved January 2, 2007, from

https://www.cerias.purdue.edu/tools_and_resources/bibtex_archive/archive/2004-28.pdf

Telem, M. (2001). Computerization of school administration: Impact on the principal's role-a case study. *Computers and Education*, 37(3), 345-362.

Visscher, A.J., Wild, P., & Fung, A. (2001). *Information technology in educational management*. Norwell, MA: Kluwer Academic Publishers.

Whitehead, B. M., Jensen, D. F. N., & Boschee, F. (2003). *Planning for technology: A guide for school administrators, technology coordinators, and curriculum leaders*. Thousand Oaks, CA: Corwin Press, Inc.



Assignments:

Attendance and Discussion Participation

Attend class and participate in classroom and on-line discussions.

Technical Glossary Definitions

Submit at least five suggestions for entries to a course glossary. Suggestions must be **in your own words** and include the term, its meaning, and, optionally, a reference to further information about the term. Post your submissions in the appropriate discussion board area of Blackboard. **Due: March 30**

Web Gems

Submit three web sites that you consider to be valuable information sources, useful utilities, or interesting Web applications. Submit each link with a short paragraph **in your own words** about why you consider the site to be a “gem.” Post your submissions in the appropriate discussion board area of Blackboard. **Due: March 30**

Journal Observations about Information Systems

Using the Blackboard™ forum, *Observations*, share with the class observations concerning positive and negative experiences with information systems, challenges and successes with school management systems, and potential system improvements. Participate in this activity as a demonstration of how an online system can be used for general information dissemination and timely and effective communication with community members.

Quizzes

Complete on-line quizzes. These are designed to give you immediate feedback on course materials and activities.

Current Issues Presentation and Discussion

Students are required to present an overview of a current issue in the use of information systems in the management of education. The in-class presentation will be followed by a

short in-class question-answer session and then an on-line discussion in the Current Issues forum facilitated by the presenter. Current issues can be found in many locations, including newspapers, education journals, and on-line resources, such as the ERIC database (<http://www.eric.ed.gov>), the Department of Education's Website (<http://www.ed.gov>), the California Department of Education Website (<http://www.cde.ca.gov/>), or the Technology Information Center for Administrative Leadership (<http://www.portical.org/>).

Topics addressed in the past have included:

- Access to Technology – Digital Divide
- Funding for Technology – E-rate
- Technology Standards
- Assistive Technology
- Security/Privacy
- Censorship/Filtering
- Intellectual Property/Copyright
- Professional Development

To set the context for the presentation, prepare the overview for a typical audience of faculty, district staff, or parents/community members.

Requirements:

1. Locate and post a link to an article that introduces the issue. Due the weekend before your scheduled presentation.
2. Prepare a 10-minute presentation for the class. Among the information to include in the presentation are answers to the following:
 - a. What is the context for the presentation?
 - b. What is the issue, including relevant data that describe the issue?
 - c. Why is this issue important? What school-based decisions are related to the issue?
 - d. What is recommended to address this issue? How have other schools addressed the issue? What best practices are recognized about this issue?
3. For the two weeks after the presentation, facilitate an online discussion in the Current Issues forum by posting a discussion question for group discussion. Each member of the class must contribute three substantive posts to the discussion thread during the two-week period. The facilitating student must post a summary message at the end of the two weeks that identifies the major points made in the discussion.

Commercial Product Review and White Paper

Conduct a review of a commercial information system product and present your findings to the class.

Requirements:

1. Choose a commercial IS product and receive the approval of the instructor to research it.
2. Describe the purpose and market for this product.
3. Compile typical system specifications -- hardware and software -- and approximate cost estimates.

4. Identify the product's major competitors and estimate the installed base (i.e., number of customers) for the product.
5. Evaluate at least one important human factor to consider in the implementation of the product.
6. Explain how the product would be used to manage the knowledge of the organization.
7. Conduct a short, informal interview with either a current user of the system or a sales person.
8. Using an organization with which you are familiar, describe how this product would solve information-related problems for the organization.

This review will include a brief (5-10 pages) written report for the instructor, a one-page hand-out for students, and an in-class, 15-minute presentation. The presentations should include a brief description of the system and then concentrate on the ways in which the product would help to manage the knowledge for an organization.

Prototype IS Component Development

As part of a team, develop a prototype of an IS component. Examples include a part of a student information system (admissions, registration, financial aid, grading, course/instructor evaluations, degree requirements), financial records system, human resources system, curriculum management system, student advising system, facilities management system, or room scheduling system. The team will identify a component of common interest, subject to facilitation and review by the instructor. Then the team will divide tasks and assign individual responsibilities.

These responsibilities include:

- explaining the purpose of the IS component;
- describing the audience(s) and uses for the IS component;
- outlining a needs-assessment process to guide system selection/development;
- creating IS elements -- databases, reports, queries, etc.;
- preparing training materials;
- outlining an implementation plan with milestones and timelines.

Progress on the project will be presented to the rest of the class members through informal "briefings" at the following times during the course.

February 2 nd :	group formation, project focus, and sub-task assignments
February 16 th :	clarification of project focus, purpose, audience(s), uses
March 2 nd :	needs assessment elements
March 30 th :	database structure
April 13 th :	implementation plan
April 27 th :	training plan; final database development and presentation planning
May 11 th :	final presentation (demo of component)

Each group's report should include the following:

- a description of the component including its purpose, its audience, and its relationship to a larger system
- an outline of the needs assessment process that aided the development of the system
- an implementation plan with milestones and timelines
- a diagram of the system elements and their relationships
- sample screens with explanations of the contents
- training materials

Through periodic informal briefings, the group will update the class and the instructor on its progress. These periodic reports and the group's organization and progress will be factors in determining the grade for the project. Each group's final presentation should include an overview of the system, the "trials and tribulations" of the development process, and a live demonstration of the component and its use.

Grade Distribution:

10% Class/On-Line Discussion Participation

10% Glossary Submissions

10% Web Gems

15% Quizzes

15% Current Issues Presentation and Discussion Facilitation

20% Product Review and White Paper

20% Group-based IS Component Prototype Development