

# COLLEGE OF BUSINESS ADMINISTRATION

AT THE UNIVERSITY OF MISSOURI - ST. LOUIS

Class	Thursday: 6:55-9:35 p.m.	Room	CCB 104
Instructor	Dr. Rajiv Sabherwal University of Missouri System Curators' Professor	Phone	314-516-6490
Office Hours	Thursday 4:00-6:00 p.m., & by appointment	Office	CCB 206
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**“Information technology is very important to our strategy. These days we can’t work without it.”** (Shengman Zhang, Managing Director of the World Bank).

## Motivation for the Course

The impact and usefulness of information systems (IS's) have risen dramatically in the last two decades. Information technology (IT) is found everywhere, in the form of iPods, cell phones, laptops, desktops, servers, printers, and so on. This proliferation of IT has been accompanied by increase in graphical user-interfaces, rapid decline in cost/benefit ratios, and the development of the Internet (with its use for disseminating and retrieving information, electronic mail, electronic commerce, etc.). IT plays an important role in a variety of areas, including customer service, market research, financial management, product innovation, manufacturing, knowledge management, and so on. Indeed, the very success or failure of the organization often depends on how well it manages its IS resources. However, the greater options and technological uncertainty also make it difficult to manage, and best utilize, information systems and technologies.

## Course Objectives

Designed for individuals who need to understand the role and potential contribution of IT within organizations, this course should help

you in making decisions about IT utilization in your roles as a user of information systems or as an IS professional. Please note that our focus is not on IT itself, but rather on its business applications. The course focuses on the interface between organizations (and their various facets, such as structures, strategies, and people) and information systems. Specific objectives include learning about: the roles of emerging information technologies in contemporary organizations; strategic use of IT; IT impacts on individuals, organizations, etc.; and the processes involved in IS management.

You should be able to integrate various and disparate material (cases, project, textbook, and lectures) into a coherent "big picture". To this end, this course will encourage you to think, argue logically, and apply the concepts and knowledge to real-life situations. Overall, your learning in the course will be facilitated through:

Case preparation -- by students, individually and in groups, as well as by the instructor

Classroom instruction -- through lectures, overheads, etc.

Collaboration -- among groups of students working together on cases and the project



Competition -- across groups, often by encouraging them to take opposing positions on cases

Conversations -- between students and instructor and among students, both inside and outside the class

Creativity -- in presentations of group projects and also in providing insights during case discussions

### Reading Materials

The course will not use a textbook. However, it might be a good idea for at least some students (especially those without any prior information systems coursework or experience) to use a book to understand some of the fundamentals and terminology of information systems. Any recent (preferably 2004 or later) book on information systems, which may be obtained through the library, friends, or a bookstore should be sufficient. Three examples are given below:

Essentials of Business Information Systems (7th Edition) (Hardcover), by Jane P. Laudon, Kenneth C. Laudon, Prentice Hall, 7th edition (April 3, 2006), ISBN: 0132277816.

Management Information Systems (10th Edition) (Paperback), by Raymond McLeod, George Schell, Prentice Hall; 10th edition (April 26, 2006), ISBN: 0131889184.

Management Information Systems (Hardcover), by Gerald V Post, McGraw-Hill/Irwin; 4 edition (February 4, 2005), ISBN: 0072947799.

Instead of using a textbook, the course will use a set of readings and cases, which are given below. Of these, the underlined cases/article will need to be purchased through Harvard Business School Publishing (the procedure for which I will describe in an e-mail to the students), whereas the rest can be obtained as PDF files through UMSL's online library (ABI/INFORM).

### Articles

1. Evolving From Information to Insight. 2005. G. Ferguson, S. Mathur, B. Shah. MIT Sloan Management Review. Winter 2005. Vol. 46, Iss. 2; pp. 51-58.
2. Automated Decision Making Comes of Age, 2005. Davenport, T.H., and J.G. Harris, MIT Sloan Management Review, Summer, Vol 46, Iss. 4; pp. 83-89.
3. Enterprise 2.0: The Dawn of Emergent Collaboration. 2006. A.P. McAfee. MIT Sloan Management Review. Spring 2006. Vol. 47, Iss. 3; pp. 21-28.
4. Learning From the Internet Giants. 2004. L.M Weiss, M.M Capozzi, L. Prusak. MIT Sloan Management Review. Summer 2004. Vol. 45, Iss. 4; pp. 79-84.
5. The End of Corporate Computing. 2005. Nicholas G. Carr. MIT Sloan Management Review. Spring. Vol. 46, Iss. 3; pp. 67-73.
6. David L Margulius. 2005. Nick Carr Backpedals ... Just a Bit. InfoWorld. Dec 5. Vol. 27, Iss. 49; p. 30.
7. Detours in the path toward strategic information systems alignment. 2001. R. Hirschheim, R. Sabherwal. California Management Review. Fall 2001. Vol. 44, Iss. 1; pp. 87-109.
8. Technology and Human Vulnerability, HBR Article, September, 2003, Reprint R0309B.
9. RFID enhances visitors' museum experience at the Exploratorium, 2005. S. Hsi, H. Fait. Communications of the ACM. Sep 2005. Vol. 48, Iss. 9; pp. 60-65.
10. Privacy in the Global E-Village. 2004. G.J. Pottie. Communications of the ACM. Feb. Vol. 47, Iss. 2; pp. 21-23.
11. Who's reading your office e-mail? Is that legal? 2006. C.M DePree Jr, R.K Jude. Strategic Finance. Apr 2006. Vol. 87, Iss. 10; pp. 44-47.
12. Proven Practices for Effectively Offshoring IT Work. J.W. Rottman, M.C. Lacity. 2006.



- MIT Sloan Management Review. Spring 2006. Vol. 47, Iss. 3; pp. 56-63.
13. The role of trust in outsourced IS development projects. 1999. R. Sabherwal. Communications of the ACM. Feb. Vol. 42, Iss. 2; pp. 80-86.
14. Open-source software development. 2003. Georg von Krogh. MIT Sloan Management Review. Spring. Vol. 44, Iss. 3; pp. 14-18.

## Cases

1. Wyndham International: Fostering High-Touch with High-Tech, Product #: 9-803-092.
2. Pharmacy Service Improvement at CVS (A), Product#: 9-606-015
3. Ford Argentina: Transforming a Global Industry in a Local Market, Product #: 9-803-093.
4. "Real-time Business Intelligence: Best Practices at Continental Airlines," by H. Watson, B.H. Wixom, J.A. Hoffer, R. Anderson-Lehman, and A.M. Reynolds. Information Systems Management, Winter 2006, pp. 7-18.
5. Enterprise IT at Cisco. Product #: 9-605-015.
6. Pfizer's Virtual CIO (Abridged). Product #: 9-305-018.
7. Cathay Pacific: Doing More with Less. Product#: 9-303-106
8. Novell: Open Source Software Strategy Product#: 9-605-009.
9. A Blogger in their Midst, HBR Case Study, September 2003 (Reprint R0309A)
10. Wikis at Dresdner Kleinwort Wasserstein: (A). Product#: 9-606-074.

## Expectations of Performance

You are expected to prepare for, attend, and contribute to, the classes on a regular basis. 20%

of the course grade is based on class contribution. Another forum for you to demonstrate your knowledge of information systems will be available through three exams (best two will be considered), which account for 50% of the course grade. Finally, you will learn through a group project. Working in a group of 3 to 5 students, you will examine an organization's IT's, IS's, and their management, as described later. Each group will prepare a case and two proposals, and present the proposals in class at the end of the semester.

Thus, your grade will be calculated as follows:

Class Contribution	=	20%
Exams (best 2 of 3 @ 25% each)	=	50%
Group Project	=	30%
(Case = 15%; two proposals = 8%; presentation = 5%; peer evaluation = 2%)		

## Grading Policy

Letter grades will not be assigned to individual components of the course. Only points (numeric scores) will be assigned. These scores will be added at the end of the course. The exact cutoff points for final grades will depend on the point distribution. But the following is a rough guide:

Points percentage	Letter grade
> 90	A-, A
80 - 89.9	B-, B, B+
70 - 79.9	C-, C, C+
55 - 69.9	D-, D, D+
< 55	F

## Class Contributions (20%)

We will all need to read each case or reading before we talk about it in class. In preparing each case, please carefully consider the "case questions." The questions for the cases will be posted on MyGateway.



You are expected to help all of us by contributing to the discussions in class. The class discussions should be conducted in a friendly fashion, although we may have occasional disagreements and debates. I will keep track of your contributions in each class.

Of course, if you have prepared the material but do not come to class, the rest of us will be deprived of the opportunity to benefit from your insights. Therefore, attendance will be taken in every class, and a penalty of 0.50 point will be applied for every class missed excluding ONE "free" absences.

### Exams (50%)

There will be three exams. Your best two exam scores will be considered.

Each exam will be open-book and open-notes (but closed friends). Each exam will be of 2-1/2 hour duration. Each exam will include FOUR essay questions, of which you will be expected to answer any THREE.

All exams will be cumulative. Therefore, exam 2 will cover more material than exam 1, and exam 3 will cover more material than both exams 1 and 2.

### Group Project (30%)

Student groups of 3 to 5 will study one organization's use and management of IT. The information about this organization's IT use and management should be obtained through a combination of means, including: personal or phone interviews with the organization's employees; articles/cases from Wall Street Journal, Fortune, Business Week, Information Week, CIO, Harvard Business Review, Sloan Management Review, etc.; and the worldwide web. If you cannot interview any executive from the

organization, either personally or by phone, you should obtain a greater variety of published information so that you can form reliable and rich conclusions. The instructor will hold any information you provide in the report in the STRICTEST CONFIDENCE. If any portion of the report is used for other purpose, the presentation will be such as to make it impossible for the readers to identify the specific firm or individuals.

Based on the above information, each group will present its findings in three documents and one in-class presentation. The three documents include a case, and two proposals (an application proposal and a process proposal).

The case (worth 15% of the course grade) should be similar in style to the cases discussed in class. It should be 8 to 10 single-spaced pages, excluding appendices (Tables, Figures, etc.), and should include the following:

Executive Summary	5%
General background of the organization	5%
A summary of the functions of key info. systems	10%
Description of the IS department	10%
Description of the structures and processes for managing IS's	30%
Detailed description of one major information system	20%
Conclusion (Including recommendations & links to literature)	15%
Appendices	5%



1. Executive Summary (5%) should summarize the rest of the report in 1 or 2 pages. It should point the key points of the report so that an executive who is too busy to read the entire report can get an excellent idea of the report just by reading the executive summary.

2. General Background of the Organization (5%):

- (a) The business the organization is in,
- (b) The size of the organization (in terms of number of employees and annual sales),
- (c) Its organization structure, and
- (d) Its main competitors.

3. A summary of the functions of info. systems (10%). This section should briefly summarize the functions performed by the various information systems within the organization. This section could benefit from a Table that concisely gives a list of the major benefits for each of these information systems.

4. The IS Department (10%), including information on:

- (a) The number of employees in the IS department,
- (b) The structure of the IS department,
- (c) The working style within the IS department (i.e., how formal or informal it is), and
- (d) The placement of the IS department in the overall organization structure (i.e., who does the head of the IS department report to?).

5. Description of the structures and processes for managing IS's (30%). This section should describe how the organization manages information systems and technologies. Questions such as the following should be answered in this section: How does the organization plan for the various information systems it would be devel-

oping? Which individuals and departments are involved in the IS planning process? How does it decide how much resources would be allocated to each system? How does it usually develop systems (e.g., in-house or outsourced?) Who evaluates information systems? How are they typically evaluated? Who are the main individuals and committees involved in IS management? etc.

6. Detailed description of one major information system (20%): Select the one most important information system for this organization, and describe it in detail. This section should address questions such as the following: Who are the main users of the system? What are the key inputs and outputs for the system? What benefits does the system provide to various users? When was it developed, and by whom? How much has the system changed over the years, and in what ways?

7. Conclusion (15%). To conclude the report, the above sections should be used to comment on (a) the nature of the overall IS management process and the organization's information systems; and (b) the future direction you (based on interviews, etc.) foresee for the organization's IT use and management. In drawing these conclusions, you should draw upon the concepts and cases covered in this course.

8. Appendices (5%). The required appendices include: (a) indicators of the organization's size (annual sales & no. of employees); (b) a chart for the overall organization structure; (c) a chart for the structure of the IS department; (d) a list of the individual interviewed for the projects, including their names and titles, and the date and approximate duration of each interview; and (e) a list of all the articles referred in the report.



TWO detailed proposals, which are each worth 4% of the course grade, should be submitted. Each proposal should be 2 to 3 pages long (single-spaced), excluding appendices (Figures, Tables, etc.).

One proposal (application proposal) should focus on a new IT application. This proposal should state: (a) description of the proposed application; (b) how you would go about developing it; (c) the expected benefits; (d) the expected costs; (e) why do you believe that the benefits outweigh the costs.

The second proposal (process proposal) should focus on improvement in IS management. In this proposal, you should describe (a) the problems in the current IS management, focusing on one specific process (e.g., planning, development, hardware acquisition, IS evaluation), (b) the proposed improvement (which should not be a laundry list of several minor changes, but a substantially different approach -- think "process reengineering"; and (c) the costs and benefits of the proposed approach to IS management. In both these proposals, you may borrow ideas from the cases discussed in class, but creativity (as long as not so wild as to be indefensible) will also be considered very important.

**Group Presentation (5%):** Each group will present in class its proposals about (a) the new IT application and (b) the new IS management process. Each presentation is expected to last about 10 minutes (plus Q&A), although the exact time available will depend on the number of groups. The presentation will concentrate on the two proposals, providing the information described above. In addition, to help the other students in following the proposal, each group will present a brief summary (one or two overheads) of the key information about the organization, its industry, and its current information systems.

Peer evaluations (2%): All members should contribute to the group effort. To increase the likelihood that this happens, 2 points in the course will be based on peer evaluation by group members. For this evaluation, each student will allocate 100 points among the OTHER members of his/her group, and submit these peer evaluations in a closed envelope along with the group's final assignment. If a student does not submit peer evaluations, it will be assumed that (s)he believes that the other group members contributed equally.

Each group is expected to submit a one-page project idea identifying the organization, the nature of its IS's, your reasons for selecting this organization, and possible sources of information. The approval of the project idea by the Instructor will avoid duplication and ensure proper focus. This project idea should be submitted early in the semester so that it can be approved latest by 9/21

## Notes

If anyone has a health condition or disability, which may require accommodations in order to effectively participate in this class, please contact the Disability Access Services Office in 144 Millennium Student Center at 516-6554. Information about the disability will be regarded as confidential.

No plagiarism! You may not copy directly from sources unless you indent the text and put it in quotes. This should be limited to a few sentences of specific quotations. You must rephrase sources, and only draw ideas from explicitly cited references. Any student who copies directly from the web or printed sources will be turned over to Academic Affairs.



## Contacting Me

You can meet me during my office hours or set up an appointment.

You can contact me via e-mail. Please include IS 5800 as the first part of the subject of your e-mail messages. If you are attaching files, they must be in Microsoft Office, ASCII (text), PDF, or iWork formats, and should be carefully checked for virus. I will most likely reply to your e-mail messages within 24 hours.

You can call me at 516-6490. Again, I will try to reply to voice messages within 24 hours. But e-mail is much better.

Finally, in case of an emergency, please send me an e-mail message with the subject as "EMERGENCY ... IS 5800" and I will reply to it as soon as I see the message.

## Instructor Bio

I am a Curators' Professor for the University of Missouri System, the Emery C. Turner Professor of Information Systems at University of Missouri, St. Louis, and Director of the Ph.D. Program in Business Administration (with information systems emphasis). I am the Departmental Editor (information technology) for IEEE Transactions on Engineering Management, and serve on the editorial boards for Information Systems Research, Journal of MIS, and Journal of AIS. I recently completed a 3-year term as a Senior Editor of MIS Quarterly.

My research focuses on knowledge management, information systems strategy, and social aspects of systems development. It has been published in journals such as Information Systems Research, MIS Quarterly, California Management Review, Communications of the ACM, and Organization Science. Some of my research has been funded by the Advanced Practices Council of the Society for Information Management.

I have conducted detailed case studies at a variety of leading organizations, including NASA Kennedy Space Center, Ryder System Inc., Burger King, Microsoft, Miami Dade County, and Tata Consultancy Services. I have spoken frequently to academic and business audiences in United States, Canada, Norway, Finland, and India, and have taught executive or company-based courses on Project Management, Global Electronic Commerce, and Organizational Information Systems.

# COLLEGE OF BUSINESS ADMINISTRATION

AT THE UNIVERSITY OF MISSOURI - ST. LOUIS

Date	Topic	Articles	Cases
8/24	Introductions		Syllabus
8/31	IT's and decisions	Evolving From Information to Insight	Wyndham International
9/7	IT's and work processes <u>Initial Project Idea</u>	Automated Decision Making ...	Pharmacy Service ... at CVS (A)
9/14	Communication & Internet technologies	Enterprise 2.0	Ford Argentina
9/21	Knowledge management and business intelligence <u>Approval of Project Idea</u>	Learning From the Internet Giants	Continental Airlines
9/28	<b>Exam 1</b>		
10/5	Outsourcing IT	Proven Practices for Effectively Off-shoring ...; The role of trust in outsourced ...	Cathay Pacific ...
10/12	Open source development	Open-source software development	Novell ...
10/19	Strategic Management of IT	Detours in the path toward strategic information systems alignment.	Pfizer's Virtual CIO
10/26	<b>Exam 2</b>		
11/2	Organizational impacts of IT	The End of Corporate Computing; Nick Carr Backpedals	Enterprise IT at Cisco
11/9	Social impacts of IT ... #1	Privacy in Global E-Village; Who's reading your office e-mail ...	Blogger in their Midst
11/16	Social impacts of IT ... #2	Technology and Human Vulnerability; RFID enhances visitors' ...	Wikis at Dresdner Kleinwort Wasserstein: (A)
11/30	Conclusions, Recap, Presentations		
12/7	Presentations + Cases/Proposals		
12/14	<b>Exam 3</b>		