B ADM 557: Decision Support and Knowledge Management

Spring 2006

Administrative Overview

Tuesday/Thursday 1pm-2:20pm
431 Armory Hall **(A)** and 21 DKH **(D)** - see schedule for details

Instructor: Dr. Judith Gebauer (gebauer@uiuc.edu)
Office: 112 DKH - office hours by appointment

Course Overview and Prerequisites

This course introduces students to the technologies collectively called management support systems. Through a mix of lectures, hands-on exercises, and case study discussion, we will address the most current topics affecting how managers use computerized support in making management decisions. Topics covered include decision support systems, customer relationship management, business intelligence, group support systems, knowledge management, and artificial intelligence systems, such as expert systems, neural computing, and genetic algorithms.

Classes are held in 431 Amory Hall (marked with **(A)** on the course schedule) and in 21 David Kinley Hall (computer lab, marked with **(D)** on the course schedule). Students are expected to participate actively by contributing to in-class discussions, by participating in in-class exercises, by preparing homework assignments, and by preparing two presentations to be given in class. A take-home final concludes the course.

Instructor

Judith Gebauer joined the University of Illinois at Urbana-Champaign as an Assistant Professor in the Fall of 2001. Her research interests include the management of emerging technologies and its impact on organizations, more specifically the economics of information system flexibility and task-technology fit of mobile information systems. At her previous appointment as a research fellow at the Haas School of Business at the University of California, Berkeley, Dr. Gebauer coordinated a research project on electronic procurement and inter-organizational electronic commerce. The project mapped the state of the art of Internet-based procurement systems and addressed their use and impacts on purchasing processes and supplier relations. Dr. Gebauer holds a Ph.D. (1996) and a master degree in Economics from the University at Freiburg, Germany (1991).

Grading

This course requires a considerable amount of work from the students, inside and outside of the classroom. Research shows that learning is most effectively done if students become actively involved with the learning material. In a field that is as dynamic and applied as information systems, lectures can only provide an overview and introduction to the issues. Activity from the students will include hands-on exercises, independent research, and interaction between the course participants. Students are encouraged to share their experiences and knowledge about decision situations and support systems obtained from prior jobs, internships or from simply using the Web.

Two presentations at 25% each: Each student prepares two presentations, each of approximately 30 minutes. For Presentation 1, each student chooses one topic from a list of topics provided by the instructor. Each topic will be presented at a pre-defined date during the semester. Presentation 2 will be given at the end of the semester on a self-selected topic.

Class Participation (25%): Class participation is a significant part of the overall grade. To ensure the quality of in-class discussions, students are strongly encouraged to prepare by working through the assigned reading material before class. In general, contributions inside and outside of the classroom will be honored, including occasional homework assignments. I will be applying the following guidelines:

1. Students who are *present* without actively participating earn *half* of the total participation points. Throughout the semester, roll will be kept, and points deducted for missed classes, regardless of the reason.
2. *Active participation* counts for the remaining *half* of the total participation points and includes such activities as responding to questions asked during lecture, commenting on what is said in class, and providing additional insights on class topics. *Meaningful contributions* include (1) applying conceptual material from the readings or lecture, (2) applying other ("outside") material that has not been provided in the readings or lecture to the discussion, (3) integrating comments from previous students, (4) reaching back to something said previously in the discussion that is pertinent to the discussion at the moment, (5) taking issue with a classmate's analysis, (6) pulling together material from several places in a case study and readings, (7) drawing parallels from previous case studies and readings, (8) tying in briefly an experience you have had that is relevant to the discussion, or (9) by generally demonstrating that you have carefully read the material and given it careful thought.
3. There are several possibilities for students who have to miss class for whatever reason or who are shy or unable to speak in class to earn *make up participation points*. These possibilities include:
    a. Submission of *homework assignments* (given out at an infrequent basis, homework has to be submitted before beginning of class on due date)
    b. Participation outside the classroom, such as by posting comments, related articles and other material to the shared class space (FirstClass conference), as well as providing constructive feedback on how to improve the course.
    c. Presentation of *current events and news* that relate to topics discussed in class. Please, submit a brief written summary of the news, including how they related to the course before the session and be prepared to present both briefly in class.
    d. *Bonus presentation* (see below).

Final exam (25%): There will be a final take-home exam at the end of the semester. The exam will be administered over the course of one week and will cover topics that were discussed in class throughout the semester.

Bonus presentation (2%): Throughout the course, students also have the opportunity to earn bonus points by

giving a *short presentation* of no more than 15 min (one presentation per student, individual presentations only, unless explicit permission has been granted for a group presentation). For topics, scheduling, and further details, please coordinate with the instructor, preferably at the beginning of the course.

To summarize, grades will be determined as follows:

- Class participation, including homework assignments: 25%
- Presentation 1 (during semester): 25%
- Presentation 2 (end of semester): 25%
- Final exam: 25%
- Bonus presentation (optional): 2%

The grading scheme will include +/- grading for letter grades A through D. In the past, I have assigned the grades as follows:

- 95% of total points or better = A
- 90% or better = A-
- 86.6% or better = B+
- 83.3% or better = B
- 80% or better = B-
- 77.6% or better = C+
- and so on...

Grades are NOT curved and will be posted on Compass.

General Course Policies

1. **On-time delivery:** All assignments are to be submitted no later than at the beginning of the class on the due date indicated in the schedule. Assignments should preferably be submitted by email to gebauer@uiuc.edu prior to class, but can also be handed in on paper at the beginning of class. Managers contend that the greatest disservice professors do to students is to accept late assignments. Lateness is unfair to other students who complete all assignments and course-related behaviors on time, is unfair to the instructor who must rearrange work schedules, and most importantly represents a pattern of behavior that is not rewarded in the real world. Therefore, except in extraordinary circumstances, late papers will not be accepted and make-up assignments are not available. When preparing your papers and assignments, please, allow time for unexpected delays and avoid last-minute scheduling.
2. **Backup copies:** It is recommended that you make copies (electronic or on paper) of all assignments before submitting them. It protects you and allows you to continue working while the assignment is being graded.
3. **Format of assignments:** All assignments should be typed, double-spaced, with one-inch margins all around and a 12-point print font. All assignments submitted must be neat and organized. This includes information about the assignment (title, name of student, course information, date) as well as a list of the references used. Incomplete, sloppy, disorganized, or otherwise "unprofessional" work can be returned ungraded with a score of zero.
4. **Academic misconduct:** Academic misconduct of any form will not be tolerated. Actions including, but not limited to, plagiarism, copying another student's work, copying and/or submitting work done by students in prior semesters, and cheating on exams will be punished to the full extent permitted by university policies and procedures. Regarding plagiarism, please note that any time you put your name on a piece of work for this course, you are asserting that it is your own work, except when otherwise indicated

and permitted. To avoid plagiarism, the source of any information that you use must be reported using an appropriate citation format. Direct quotations must be indicated with quotation marks and page references.

5. **Proper conduct** is expected in class. This includes being on time and being alert during the class session (even if not participating verbally). It also includes showing respect to the instructor as well as to fellow class members. I reserve the right to deduct points if these criteria of good conduct are not met. Mutual respect and honesty are values that will make this course rewarding as well as fun.
6. **Use of computers and the Internet in the classroom and the lab**: the use of a computer in the classroom and in the lab is considered to be a privilege, not a given right. While students are certainly encouraged to bring their computers to the classroom to take notes, the use of non-class related applications, such as games, email, chat, usenet-news or web-browsing is not allowed in the classroom or in the lab during lecture, unless explicitly permitted by the instructor. Failure to comply with this policy will result in a reduced grade of class participation and may result in a loss of the privilege to use a computer in class at all.

Text Book, Readings, and Online Resources

- Significant parts of the **lectures and exercises** in this course are based on the following textbook (access to this textbook is strongly recommended for all students, but it is not strictly required to purchase the book):

  Efraim Turban, Jay E. Aronson, Ting-Peng Liang: **Decision Support Systems and Intelligent Systems**, 7th edition, Prentice Hall, 2004. The book is available from all three campus bookstores and from Amazon. We will also use the companion website of this textbook.

  > There are several alternatives to purchasing the (expensive) hardcopy version of this book. First, copies of this books are on reserve in the Undergraduate Library. Second, you can get a copy of the 6th edition which has most material included in the 7th edition. A companion website is available. Third, you can get a subscription to an online version of this book through SafariX.

- For **hands-on exercises**, we will use the following two books (on reserve in the undergraduate library):
  - Wayne L. Winston: **Microsoft Excel - Data Analysis and Business Modeling**, Microsoft Press, 2004 (consider purchasing this book, you might want to keep it...)
  - Michelle M. Hanna, Ravindra K. Ahuja, Wayne L. Winston: **Developing Spreadsheet-Based Decision Support Systems Using Excel and VBA for Excel**, forthcoming (available electronically from the Course Documents section)
- For up-to-date information on what is happening in the DSS-world and for real-life cases, we will use **Dan Power's DSSResources**-Website at www.dssresources.com - part of the website can be accessed by subscription only, details are forthcoming.
- Throughout the semester, **handouts and additional readings** will be handed out in class and made available in electronic form on Compass.

- **Additional recommended books on Decision Support Systems:**
  - Jill Dyche: The CRM Handbook, Addison-Wesley, 2002
  - Jill Dyche: e-Data, Addison-Wesley, 2000
  - Efrem G. Mallach: Decision support and Data Warehouse Systems, Mc Graw-Hill 2000
  - George M. Marakas: Decision Support Systems - In the 21st Century, Prentice Hall, 2003
  - George M. Marakas: Modern Data Warehousing, Mining, and Visualization - Core Concepts, Prentice Hall, 2003

- Barbara C. McNurlin, Ralph H. Sprague, Jr.: Information Systems Management in Practice, 5th ed., Prentice Hall, 2001
- Manuel Mora, Guiseppi Forgionne, Jatinder N.D. Gupta: Decision Making Support Systems - Achievements and Challenges for the New Decade, Idea Group Publishing, 2003
- Daniel J. Power: Decision Support Systems - Concepts and Resources for Managers, Quorum Books, 2002
- Vicky Sauter: Decision Support Systems - An Applied Managerial Approach, Wiley, 1997
- Mark Silver: Systems That Support Decision Makers, Wiley, 1991
- Ralph H. Sprague, Jr., Hugh J. Watson: Decision Support for Management, Prentice Hall, 1995
- Hugh J. Watson, George Houdeshel, Rex Kelly Rainer, Jr.: Building Executive Information Systems and other Decision Support Applications, Wiley, 1997

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