

BDS 528: Decision Support and Expert Systems
Fall 2006
Wednesdays 7:00-9:45 p.m.

Instructor Information:

Instructor: Sidne Ward, Associate Professor of MIS
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Please preface the subject line of e-mail messages with "BDS528:"

My Web Site:

<http://www.bloch.umkc.edu/faculty-staff/faculty-directory/ward/index.aspx>

Office Hours: By appointment or drop-in.

I'm in my office almost every afternoon and early evening and will be happy to meet with you on a drop-in basis if my schedule permits me to do so. If you need to see me, it's best to schedule an appointment to ensure my availability.

Course Information:

Description:

BDS 528 covers Information Systems to support managers and other decision makers in organizations. As a Business School student, you will be responsible for exercising judgment and making decisions throughout your personal and professional lives. From site locations and personnel decisions to selecting new advertising campaigns and deciding to accept a new position, the ability to make effective decisions and employ and deploy Decision Support Systems and other Management Support Systems is a necessary skill for professionals in marketing, finance, accounting, government, law, music, medicine, etc.

I'm not trying to turn you into Excel whizzes or Visual Basic programmers (though the course requirements include Excel-related assignments and Excel and Visual Basic for Applications (VBA) projects). You should have prior experience with Excel, but prior knowledge of VBA is not a prerequisite for the course.

By the end of the course, you should be more aware of the influences of cognitive biases and groupthink on decision makers, be able to identify both potential uses of Information Technology to support decision makers and potential effects of Information Technology on the decision process and decisions, and be able to employ Excel and VBA to structure and analyze data for decision making purposes.

Class Site: <http://blackboard.umkc.edu/>

You will need your UMKC Exchange username and password for access.

Prerequisite: BIS 202, BIS 203 or the equivalent. Admission to the MBA, MSA, or MPA programs or permission. For the purposes of this course, you should be familiar with the

following: Windows XP, Excel 2002 or 2003, and decision making in organizational settings.

Texts:

Required: Efraim Turban, Jay E. Aronson, and Ting-Peng Liang, *Decision Support Systems and Intelligent Systems, 7th Edition*, Pearson/Prentice Hall, 2005. Either of 2 versions:

- Hardcover: ISBN: 0-13-046106-7.
- Electronic: <http://www.safarix.com/>, ISBN: 0-13-128820-2.

Required: Lisa Friedrichsen, *New Perspectives on Microsoft Excel 2002 with Visual Basic for Applications*, Course Technology 2002. Either of 2 versions:

- ISBN: 0-7600-6435-0. The original edition of the book.
- ISBN: 0-619-29243-1. The current edition of the book which consists of a bundle including the original edition of the book and an update supplement for Excel 2003.

Optional: Hari Singh, *Framed!*, HRD Press, Inc. 2006. ISBN: 0-87-425873-1. For those of you interested in decision making in a broader context, not just as supported by information technology. It's not a typical textbook, though it was written by an academician. It's a novel designed to present concepts on decision making during the course of a murder mystery set in a business school. If you choose to read the book and finish it by mid-September, you'll have the chance to use it as part of a class project if you wish.

Course Objectives: By the end of the course you should:

- Be able to recognize the role of Decision (and other Management) Support Systems and their potential for assisting in organizational and individual decision making.
- Be able to identify potential effects of biases, which affect individual decision makers, and groupthink, which affects groups of decision makers.
- Be able to identify the types of problems that may be addressed effectively through the use of Decision Support Systems and Intelligent Systems.
- Be able to recognize user interface issues in the development of systems to aid decision makers.
- Be familiar with the characteristics of Group Decision Support Systems (and other groupware) and how these systems may be applied to group tasks.
- Develop Decision Support Systems using Excel and VBA.

Grading:

3 Exams (Lowest Grade Dropped)	[100 points each]	200 points
Group Assignments		50 points
Group DSS Project		100 points
Group Participation		50 points
Individual Excel or Decision Making Project		50 points
Individual Participation		50 points
Total		500 points total

Course grades will be as follows:

450-500 points A

400-449 points B

350-399 points C

300-349 points D

0-299 points F

+ or - designations may be added to course grades between the above increments at the professor's discretion. For example, for a final point total of 449.4 a grade of B+ **may** be awarded.

Exams:

There will be 3 exams. I understand everyone can have a bad day, therefore the lowest exam score will be dropped.

Most exam questions will be closed-book. Short answer questions will predominate, though there may be additional types of questions. The exams may cover any material discussed in class (including assignments and discussions) or assigned in the text or other readings.

Exams may cover the use of Excel and/or Visual Basic for Applications. This portion of the exam will be open-book.

You will not be allowed to take an exam after the regularly scheduled time for that exam. With a documented excuse (e.g., your participation in university-sponsored activities), you may be able to take an exam one or two days before the scheduled time. Arrangements must be made at least one week in advance. If you miss an exam for **any** reason, that exam score will be the one dropped. Due to conflicts in the UMKC published finals schedule, the third exam is scheduled during the last week of class on Wednesday, December 6, 2006 from 7:00 p.m. – 9:45 p.m. If you've taken the earlier two exams and are satisfied with those exam scores, you may skip the last exam and drop that score.

Groups:

Discussing and analyzing new information with others is one successful method of learning.

To that end, you will be asked to divide yourselves up into groups of 2 or 3. Time will be allotted in class on Wednesday, August 23rd for this purpose. You should select your fellow group members carefully. You may wish to ask the following questions to determine group member compatibility and expectations:

- How much time do you want to spend on work outside class?
- Do you want to divide up work and complete separately or meet and collaborate on everything?
- Do you prefer to meet in person or electronically?
- When are you available to meet and/or work?
- What skills do group members have? Knowledge level regarding Excel? VBA? Decision making? Good at writing, presenting, organizing? Others?

Once groups have been chosen, they will be set for the remainder of the semester. Nevertheless, occasionally group members find they are mismatched.

- If a group member from a two member group wishes to dissolve the group, both members will be responsible for finding another group to join. All members of the new group must agree to the addition and notice (e-mail or written) should be given to the professor.
- If one group member from a three member group wishes to join a different group, he or she may do so with the permission of everyone in both groups and notice (e-mail or written) of such to the professor.
- If two members of a three member group wish to "fire" a member, they both must agree. First, the entire group must schedule a meeting with the professor to reconcile their differences. One week after that meeting, if both members still wish to "fire" the group member, they may do so with notice (e-mail or written) of such to the professor and the former member. "Fired" group members may join another group, if they can find one, or complete the remaining assignments and project alone.

Group Assignments: In groups, you will prepare and deliver written and/or oral assignments on a variety of material during the course of the semester. You should be present in class and participate in every group assignment.

- All assignments are due at the beginning of class unless you have been told that time will be allotted in class to complete the assignment.
- If you have a documented excuse (e.g.s, statement of illness from a doctor or participation in a university-sponsored activity) and miss class on the day an assignment is worked on in class, you may make up a missed assignment with an alternative individual assignment. You must contact me immediately upon your return to class and complete the makeup assignment by the following class period.
- Late assignments will be accepted for ½ credit by the beginning of the next class period.

Group DSS Project: In groups, you will complete a project to build a DSS using Excel and Visual Basic for Applications. At the end of the course, you will present the projects to the class. You may choose the decision task (with my approval) addressed by the DSS. You'll develop, demonstrate, and document the system. If developed by a group, each of

you must participate in the development of the system and be able to explain and demonstrate it. Excel 2003 is available in the classroom and the computer labs on the UMKC campus. Projects must be fully compatible with this version of Excel. All the members of your group will receive the same grade for the project. Details regarding the course project will be available on the class site on Blackboard.

Group Participation: A group participation grade will be awarded based on evaluations by fellow group members as to your contributions towards the group assignments and project. If you must miss class on days assignments are completed in class, you may wish to share your excuse with fellow group members and to contribute extra effort to other group assignments. Students who end the semester without a group due to being "fired" from their group (see procedure above) will receive ½ credit for the group participation grade.

Individual Excel or Decision Making Project:

Individually, you will choose to complete one of two projects:

1. mini-project to build a DSS using Excel and Visual Basic for Applications or
2. a project on the cognitive and/or economic aspects of decision making.

Each student will demonstrate this project for the class on Wednesday, October 25th, the project due date. Details regarding the individual project will be available in the Blackboard Individual Project folder.

Individual Participation:

- You earn 4 points credit for individual class participation on each day you contribute to the class discussion and turn in a brief summary of that contribution at the end of the related class period. You must contribute to the class discussion and turn in the written summary that day in order to receive participation credit. If you forget to turn in a summary or turn it in late, you will not receive credit.
- You will have 1 point deducted for any unnecessary disruption of class (e.g.s, chatting, sleeping, arriving late, leaving early, entering and leaving the classroom during class, and receiving pages or cell phone calls during class). In other words, any behavior that might earn you a stern look from your boss during a meeting might negatively impact your participation grade.
- A maximum of 50 points total credit may be earned for individual class participation.
- Although attendance may be taken, it will **not** count as part of the participation grade. Sitting in class is not the same as contributing.

Responsibilities:

You have responsibilities to yourselves, your fellow classmates, and the professor.

- Be prepared for and participate in class discussions and assignments. Please ask questions when you don't understand the material and share comments with the class.
- Contribute to group projects and assignments.
- Attendance and contributions are professional obligations. Pay attention, contribute, ask questions, arrive on time, turn your cell phone off, etc.

- You are responsible for **all** material presented in class whether or not you are present. This material includes the lectures, discussions, VBA demonstrations, assignments, and projects.
- You are also responsible for being aware of all assignments, exam dates, and other course scheduling information. This information will be regularly posted to the class site on Blackboard. You should check the web site often for all due dates and any changes or additions to the original syllabus.

Academic Honesty:

You are expected to exhibit high standards of academic honesty. Cheating and plagiarism will not be tolerated.

- Written exams are closed book, closed notes, and are to be taken without assistance. Excel and VBA computerized exams are open book, open notes, but are to be taken without any assistance from a live person whatsoever. E-mail, Instant Messaging, web chats, etc. are strictly forbidden. Persons observed cheating on an exam will receive a grade of zero for the exam.
- Similarly, plagiarism of assignments, projects, and papers is unacceptable. Answers to all assignments should be presented in your own words. A grade of zero will be assigned on any such item where plagiarism has been detected.
- University regulations require that I report the incident to the Bloch School administration, which may in turn report the incident to the UMKC administration. Therefore, additional penalties may be applied.
- Student conduct policies are available at:
<http://www.umkc.edu/catalog/html/append/policy/0020.html>

ADA Policy:

If you have any questions about a disability, or desire accommodation under the Americans with Disabilities Act, please contact the Office of Disabled Student Services - 816.235.1083. Their website is: <http://www.umkc.edu/disability/>

Weather:

The university announces class cancellations on their web site. If the university has not announced that classes are canceled during bad weather, check the class Blackboard site.

- If I feel it is necessary to cancel class, there will be a message stating so on Blackboard.
- If you're unable to attend class during bad weather when the class has not been canceled, please e-mail me before class.
- If class is canceled due to inclement weather, all activities scheduled for the canceled session will take place during the next class meeting including exams and assignment due dates.

Additional Policies:

The division, the Bloch School, and UMKC have additional policies that may apply to the conduct of the course.

Modification of the Course Syllabus:

All course requirements, course grading standards, and due dates for assignments for this course are subject to change at the discretion of the professor. Changes to the printed syllabus (distributed the first class period) will be announced during a regularly scheduled class period as well as posted to the class site on Blackboard. You are responsible for keeping up with any such modifications.

Tentative Schedule

CLASS SESSION	MATERIAL	ACTIVITIES
August 23, Wednesday	Course Introduction DSS/IS Ch. 1: Introduction to Management Support Systems	class meeting, Group Selection
August 30, Wednesday	DSS/IS Ch. 2: Decision Making Multiattribute Decision Making (lecture only) Excel/VBA: 1.2, 6.1, 6.2	class meeting
September 6, Wednesday	DSS/IS Ch 2 (cont.) Tversky and Kahneman, "Judgment Under Uncertainty: Heuristics and Biases," (supplemental reading) Optional: Singh, <i>Framed!</i> Excel/VBA: 8.1, 8.2	class meeting
September 13, Wednesday	DSS/IS Ch 3: Introduction to DSS Excel/VBA: 8.3, 9.1, 9.2	class meeting
September 20, Wednesday	DSS/IS Chapters 1-3, Tversky and Kahneman Excel/VBA: 1.2, 6.1, 6.2, 8.1, 8.2, 8.3, 9.1, 9.2	Exam
September 27, Wednesday	DSS/IS Ch 4: Modeling and Analysis DSS/IS Ch 5: Data Warehousing and Mining Excel/VBA: 1.3, 3.1, 3.2, 4.1	class meeting
October 4, Wednesday	DSS/IS Ch 5 (cont.) DSS/IS Ch 6: Developing DSS	class meeting
October 11, Wednesday	DSS/IS Ch 7: Group Decision Making and Groupware	class meeting
October 18, Wednesday	DSS/IS Ch 7 (cont.) Janis, "A Perfect Failure: The Bay of Pigs," (supplemental reading)	class meeting
October 25, Wednesday	DSS/IS Ch 8: Enterprise Systems for Decision Support Project Presentations	class meeting, Individual Project Due
November 1, Wednesday	DSS/IS Chapters 6-8, Janis	Exam

	Excel/VBA 1.3, 3.1, 3.2, 4.1	
November 8, Wednesday	DSS/IS Ch 9: Knowledge Management for Decision Support DSS/IS Ch 10: Introduction to Intelligent Systems	class meeting
November 15, Wednesday	DSS/IS Ch 11: Knowledge Acquisition and Reasoning DSS/IS Ch 15: Impacts of Management Support Systems	class meeting
November 22, Wednesday		no class-Fall Break
November 29, Wednesday	DSS/IS Ch 15 (cont.) Project Presentations	class meeting, Group DSS Project Due
December 6 Wednesday	DSS/IS Chapters 9-11, 15 Excel/VBA (comprehensive)	Exam

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