A Capstone Introductory IS Course: Strengthening Coverage of IS2002.1 & Disentangling it from IS2002.p0

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Abstract

The undergraduate introductory Management Information Systems (MIS) course has evolved from a focus on hands-on personal productivity skills (IS2002.p0) to a focus on MIS concepts (IS2002.1) and case studies. This evolution reflects the changes in students' exposure to and skills with microcomputers. This work reports on the experiences and course re-design at the University of New Mexico (UNM). While still an introductory MIS course, the UNM model requires a significant number of management pre-requisite courses and is positioned more as a capstone than as an entry-level MIS course. The results of a short questionnaire sent to ISWORLD email list suggests that the course at UNM remains somewhat unique. The course design and rationale are the central focus of this paper.

Keywords: course design; capstone course; IS2002.1; IS2002.p0

1. INTRODUCTION

In many universities that offer undergraduate or graduate business programs, one course is devoted to an introductory exposure to the field of MIS. This MIS course is often required for students whether they want to major in MIS or in some other field. While this course has evolved over the decades since the 1980s when personal computer revolutionized the world of business computing, it remains a somewhat "nuts and bolts" course that surveys the field of MIS. In many schools, this course also contains a software skills component intended to ensure that all students hone their word-processing, spreadsheet, and presentation skills. Some offerings also include introductory database and web page development.

Given the differing skills and experiences of incoming bachelor's/MBA degree students, every introductory MIS instructor faces the challenge of creating a course that's relevant for students with some background without completing losing those with less exposure to MIS and personal computing. At best, it

is difficult to determine the technical level that will engage the most students.

The final issue that colors the course dynamics is that the introductory MIS course often serves two distinct purposes: (1) an initial required course for students interested in majoring in MIS, and (2) a required course for students uninterested in MIS but seeking a management degree. On this basis alone, instructors can expect some mix enthusiasm and disinterest coming into the classroom. While disinterest can color every required course, we believe that some of the disinterest results from the inherent mismatch between course content and student needs, and is fueled - semester after semester - by students' word of mouth on the course.

Meanwhile, the MIS community continues to evolve the recommendations for an overall MIS curriculum. The goal for MIS academics is increasingly focused on creating well-rounded graduates, ready to apply MIS tools and techniques to solve business problems and use information systems to launch or support new strategic ventures. Figure 1 (IS2002) captures this multi-faceted focus and shows

the desired characteristics of graduating MIS students.

At the same time, the major accrediting bodies for the units that house MIS programs. Accreditation Board for Engineering & Technology and American Association of Collegiate Schools of Business, International (ABET & AACSB, respectively) continue to call for the integration of MIS concepts into the curriculum. While the focus of these bodies is directed at the entire undergraduate/graduate program, they each consider the unique roles of information technology in a well-rounded business education.

The purpose of this paper is to describe a new formulation of the Introductory MIS course that imparts experiences and skills consistent with the IS2002 model and the expectations of ABET & AACSB. That is, the new formulation aims at teaching basic technology-enabled business development through balanced integration of technology, analytical and critical thinking, communication and team, and fundamental business concepts. Results of the initial offerings of this reformulated course suggest that the approach has promise.

In the remaining sections, we present an outline the course development motivation and process, and a brief review of the ABET & AACSB guidelines that impact this work. The work concludes with a summary of our results and plans for future work. The appendices contain related AACSB and ABET guidelines, and a detailed, annotated syllabus used for the course.

2. COURSE DEVELOPMENT MOTIVATION & PROCESS

Several pedagogical and institutional issues drove the MIS department to redesign the required introductory MIS course. These issues continue to influence the context within which the course is offered. Three major issues we sought to address are (1) adequately serving students without requisite personal productivity skills to complete a business degree, and (2) adequately engaging students with widely varying backgrounds and understanding of foundation MIS concepts, and (3) adequately positioning an introductory MIS course to enable students to integrate and apply MIS concepts with those from other foundation management disciplines.

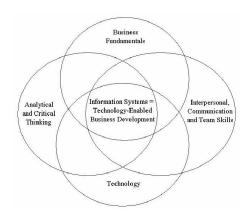


Figure 1MIS Graduate Characteristics (IS2002)

These three issues were the foundation of our redesign. At the same time, we sought to discover how similar our perceptions and experiences have been relative to other management schools. Toward that end, we developed a short questionnaire for readers of ISWORLD. The survey and results will be discussed, followed by an analysis of the three major issues in light of the survey results.

Because UNM's management school is rarely a "first mover" in curriculum changes, we hoped to find many others with experience upon which we could build. In an informal survey of MIS academics, administered by way of a posting to ISWORLD, respondents from 21 different schools shared their experiences. Appendix I contains the original request for information and Table 1 summarizes the responses.

Twenty-two individuals responded, with two respondents from the same institution; thus, there were 21 unique schools represented. Because the survey was informal and the response rate is so small, one must be very cautious about drawing conclusions from the data. As shown in the table, however, only a small percent of schools continue to incorporate personal productivity skill-building in their introductory MIS course. The focus of each course is largely MIS concepts.

One school reported repositioning the concepts-based course at the end of the MIS program (a shift from the traditional placement at the beginning). Where a school is positioned can be inferred from pre- and corequisite information. Only 7 of schools reporting require *any* management courses prior to taking the MIS course. In contrast, 17 require some sort of computing class. The

Unique Schools

Unique Schools	21				
Course Content	Med.	Mean	Min	Max	N>0%
MIS concepts	75%	71%	35%	90%	22
MIS case studies	15%	14%	0%	30%	16
Office Suite	0%	15%	0%	65%	10
Other	10%	10%	10%	10%	1
Total	100%	100%	100%	100%	22
# 3-cr Pre/Co-Req Course-Equivalents	Med.	Mean	Min	Max	N>0
Computing	1	1	0	2	17
Business/Management	0	2	0	10	7
Accreditation*	20				
ABET	1				
Other	2				
None * School can have >1 accreditation	1	Total	24		
Changes in sight?					
Major	2				
Incremental	8				
None	11				
No Info Provided	1				
		Total	22		

Table 1: Summary of ISWORLD responses

implication is that the course is not often positioned as a capstone course.

Personal Productivity Computing Skills Basic productivity computing had been included as content of two separate courses at this university until the redesign. As defined in IS2002 (IS2002), the set of skills is called Personal Productivity with IS Technology and it combines the skills formerly (IS97) defined as Knowledge Work Software Toolkit (IS97.p0) and Personal Productivity with IS Technology (IS97.2). This skills outlined in IS97.p0 and IS97.2 are combined to define IS2002.p0

One of these courses is taught by the computer science department (in the Arts & Sciences college) and includes basic computer concepts, email, Internet use, and traditional office suite software – thus, it largely delivers the "software toolkit" as expressed in IS97.2. This course is required for a variety of programs (engineering, arts & sciences,

education, and business) and has very little business-oriented content.

The course is at the 100-level, with a faculty member coordinating many graduate assistants who teach the labs. Students who lack skill and are lucky enough to be assigned to a talented lab assistant can learn a lot; students with considerable skill consistently report boredom and find that they can simply attend exam sessions and earn good grades without any new learning.

While the structure of this course is both beyond the control of the management school and beyond the scope of this paper, it is noteworthy that the management school has also launched a web-based self-paced learning and exam and course-waiver process. This process is also related to the MIS course redesign, and is discussed in a working paper (Schatzberg, 2003), and is consistent with IS2002 perspective that personal productivity (IS2000.P0) can be effectively covered in either a course or self-study modules

In addition to the computer-science course, moderately more advanced material had been included in the introductory MIS course in the management school. The introductory MIS course is only taken by management students and is completely oriented toward business applications and problem solving. It is the major focus of this paper.

The course content goes well beyond personal productivity computing, and even that coverage is oriented toward knowledge work and business applications. Including the personal productivity material had long been justified on the basis of the mixed results out of the preceding computer science course and because the management course offered the business contexts.

Nonetheless, there was noticeable redundancy in coverage. In the MIS intro course, the balance between software vs. MIS coverage varied somewhat with instructors. The software component was generally 20%-50% of the content. The software component of this course matches the recommendations in IS2002.p0 because it covered both the basic personal productivity skill set and also its application in knowledge work.

In both informal and formal course evaluations, students' perceptions of intro MIS course varied widely – and comments spanned both the software aspects and the MIS concepts. Many commented that the

software component of the management course was either redundant or trivial. On the other hand, some students valued the software component because they could see more clearly how to apply the computer skills to their areas of interest. We believe that this latter group comprised students who had not mastered the material in their earlier computer science class and were more successful in the small, management-student centered class.

Varying Incoming MIS Backgrounds

The introductory MIS course is required of all management students, whether or not they were seeking to major in MIS. Because of the software component, students without strong personal productivity skills were advised to take the course in one of their first semesters. These students generally had little if any exposure to MIS concepts, much less real world experience. These students then comprised the "low end" of skills and exposure in the class.

At the other extreme were students – many of whom were returning to college after several years in industry – with significant real world business experience. While they may have lacked the formal vocabulary, they had a fairly firm grasp on major MIS concepts, and the types of information systems "out there." Whether or not these students were interested in pursuing a degree in MIS, they were not novices with respect to a general understanding of MIS in the field.

Combining students with varying backgrounds is not unique to our environment, nor is it unique to the field of MIS. Nonetheless, our recognition of the disparity of incoming skills and our recognition our inability (thus far) to bridge that divide effectively in our introductory MIS class contributed to our interest to redesign the course.

The MIS concepts portion of this class largely addresses the content of IS2002.1, Fundamentals of Information Systems.

Integration of MIS with other Business Concepts

Because many students had been advised to take the introductory course rather early in their program for the software coverage component (see above sections), many students had neither the course work nor real world experience against which to apply the MIS concepts. Thus, class discussions

on the application of MIS in fields such as marketing, human resources, finance and accounting, and operations management largely remained "theoretical" to these students. They simply lacked the exposure to be able to integrate the new MIS concepts with any other meaningful business or management experience. Thus, at best we might expect these students to finish the course at the Comprehension (2nd) level of Bloom's (1956) taxonomy of learning, as applied to MIS concepts.

Of course, there were students at the other extreme as well: students who were nearly done with their degree programs and had mastered the foundation concepts in other fields and students who had work or life experience as contexts within which to understand the MIS material. These students can be expected to achieve the Application (3rd) level on Bloom's taxonomy of learning as applied to MIS concepts.

Summary of Motivation

Over time, the MIS faculty members became increasingly aware that the introductory MIS course was in need of an overhaul. In essence, had been attempting to deliver the material that IS2002 classifies as IS2002.p0 and IS2002.1 in this single course – and we were failing to get consistently excellent results on either dimension.

We decided to "de-couple" the personal productivity content from the use of information (and technology) in organizations. We also recognized that timing for IS2002.p0 material (very early in a student's program) is quite different from the timing for IS2002.1 material (later, once a student has more course work or experience) in a curriculum. We sought to retain the personal productivity software skills early in the program, and to move the integrative use of information to much later in students' programs.

Finally, we sought to structure our courses so that all students could be expected to achieve the Application (3rd) or Analysis (4th) level of learning on Bloom's taxonomy applied to MIS. We further expect students to reinforce the Application level of learning the personal productivity skill set, though that material is not the focus of this newly redesigned course.

3. COURSE DESIGN TO ADDRESS THE THREE ISSUES

Our intent was to create an introductory MIS course that would better enable students to

apply MIS skills and concepts to their chosen areas of study. This challenge requires a blend of MIS foundation concepts and a set of relevant real world contexts within which to apply them. Further, these contexts have to be rich enough to allow students to see the connections among MIS principles and those from other business disciplines. The basic pedagogical tool for the new course, therefore, is business case studies.

Personal Productivity Computing Skills

The software component of this new course is much like that of other junior and senior level courses: Students use the software as tools to accomplish the goals of the class. Word-processors are used to compose case analyses, spreadsheets are used to "run the numbers" using models from accounting and finance, presentation graphics are used during student case presentations. As appropriate, students embed objects from one application into another to create their class deliverables. Thus, students reinforce their Application level of learning of the personal productivity software.

Students who do not have requisite skills are able to acquire those skills by using the self-paced, web-based software program that is currently used to test-out of the computer science skills course. product of Course Technologies, Inc., SAM/TOM is a low-cost integrated selfassessment, training, and testing software suite. There is minimal faculty involvement in this remedial process, but an instructor provides training and support as requested by students. This alternative is too recent for us to assess its efficacy. Based on adult learning models and students' generally increasing comfort level with computers, however, we expect that this approach will serve many students well. If we find that a significant number cannot fill their skills gap in this manner, however, we will develop another approach.

In this manner we address the varying personal productivity skills.

Varying Incoming MIS Backgrounds
The new course design explicitly acknowledges the needs of some students for an introduction to MIS concepts. While the focus of the course is on case analyses of rather substantial business cases, there remains a component devoted to establishing the foundation. Students who are new to the field will spend more time studying the chapter material that provides the back-

ground. Students who are comfortable with a given set of concepts will likely skim or skip the related readings and just proceed to the case studies.

In the initial offerings of this course, about 40% of class time was spent on the foundation material, using a variety of pedagogical techniques to engage students. Wherever possible and practical, there is some element of hands-on or small-group work to accompany lecture and overviews. The intent is to impart the "flavor" of the concept well enough for students to then use those concepts in the class discussion and case analyses.

Often, the discussion of this material leads students to connect the material with case studies they have already analyzed – where the new concepts now given them greater insight into some of the issues we had previously discussed. This Application level of learning is normally expected to inform future work, and yet it is equally as potent when students can apply it to past experiences.

Integrating MIS with Business Concepts

To address this third issue - of integrating MIS with other business disciplines, we have positioned the introductory MIS course to come near the end of a student's course of study after they have taken most of the required core business classes. This course is taken along with the Strategic Management course in the final semester of a student's program. As noted, the new class is largely case study based, with a strong focus on learning fundamental MIS concepts and then using them along with those from operations management, human resources, organizational behavior, finance, marketing, and accounting.

The instructor manuals accompanying MIS case textbooks (e.g., Martin, et al., 2002 and Applegate & McFarlan, 2003) naturally focus on the MIS issues raised by the cases, with tangential coverage of the often profound "other" managerial issues. The point here is one of emphasis, and a common expectation of a traditional case-oriented MIS course is that the emphasis will be on MIS issues (e.g., hardware and/or software decisions). In the extreme, this emphasis accompanies a disdain for the idea that MIS cases actually describe non-MIS issues. Ironically, it is this "non-MIS" reality that provides the foundation and justification for this new introductory course design.

4. THE COURSE

The crucial importance of *non-MIS* management is ensuring the success of information technologies and systems within their organizations is the central theme, and perhaps the most important perspective of the new course. The whole point of this course is to frame MIS issues solidly within the context of the larger organization. This integrative introductory MIS course remains a required course for all undergraduate management students. It must satisfy the needs of non-MIS and MIS students alike.

For both sets of students, we have characterized the learning objectives as: learning the MIS vocabulary and concepts, recognizing how non-MIS work drives MIS requirements, recognizing the roles of non-MIS professionals in the development of technology based business solutions, and recognizing the need to communicate effectively with (and not be intimated by) MIS professionals. We find that this new course satisfies these requirements more thoroughly than our traditional survey course, and we believe that the improvement is the direct result of students being able to "see themselves" more clearly in the cases and business situations that we discuss.

Thus, instead of apologizing for the larger organizational and strategic issues (e.g., organizational fit of IS with corporate culture; maturity of the industry in which the case study unfolds and the impact that has on the MIS organization; personnel practices; managerial oversight), the course discussion centers on these issues.

With some additional instructor involvement in analyzing these cases, these related issues are rather straightforward to focus For example, focusing significant class discussion upon say, the importance of end-user training in a case that deals with an ERP implementation, the students who are Human Resources majors suddenly become "domain experts" and can become engaged in the discussion. They can offer perspectives on effective training models, perhaps bringing explicit learning from their other courses into the discussion. broader base of engagement seems to lessen the resistance and "fear" of the technical aspects of the course, since students are able to see directly just how powerfully their areas of interest and expertise can and should affect a major technological application.

Cases that focus on a decision for outsourcing, off the shelf software or internal development provide excellent opportunities for accounting and finance students to highlight the cost/benefit analyses. Concepts such as internal rate of return and payback periods are brought to the fore in these discussions.

The point is simply that framing MIS concepts larger contexts of other within the management disciplines lowers the boundaries and opens up the opportunities for higher motivation to master the material and to apply it in meaningful ways. To heighten the interdisciplinary work and insight, students might be required to work in "mixed" teams for some course deliverables. Instructors from non-MIS fields might be invited to cofacilitate the class discussions of cases. Finally, explicit assignments can require that students identify lessons learned from particular cases and apply those lessons to a different context.

To draw out and confront stereotype attitudes that often divide MIS and non-MIS groups in school and in the workplace, however, students might be asked to work with "like" students on a given assignment. Class discussions then center on the differences between MIS perspectives and those from other disciplines, and that excellent management must bring all these perspectives to bear in an effective solution approach.

While many of the cases discussed are independent of one another, there is also the opportunity to cultivate learning by discussing a few cases separately and then engaging students to compare issues and outcomes across these cases. By comparing different cases, students might notice the impact of management style (to what extent does MIS management fit the organization, and what impact does that have?), of industry/firm maturity on the ease of implementing IS innovations, of "timing" ... 1980s 1990s 2000s in the evolution of hardware, software and Ecommerce capabilities, of the six competitive forces (customers, suppliers, competitors, substitutes, potential entrants, government/ regulatory), and simply the different (and similar) requirements for deploying information technologies in different types of organizations (educational, industry, military, government, multinational).

Appendix II contains the syllabus template for this course.

5. RELATIONSHIP TO IS2002, AACSB, & ABET GUIDELINES

There were pedagogical issues and contextual issues unique to our university's environment that led to the perceived need to redesign the introductory MIS course. As we began the process of course content analysis and evaluation, however, we also verified that the intended innovations were consistent with the recommendations included in the IS2002 guidelines and AACSB.

Specifically, the shift from a nuts and bolts type of survey course to a more managerially oriented course directly supports the rather consistent requirements for MIS professionals to function effectively within the home organization (Gorgone, et al., 2002):

- IS professionals must have a broad business and real world perspective.
- IS professionals must have strong analytical and critical thinking skills.
- IS professionals must have interpersonal communication and team skills and have strong ethical principles.
- IS professionals must design and implement information technology solutions that enhance organizational performance.

This new course focuses on the application of MIS concepts in real-world business settings where students are challenged to discover the real problems underlying business symptoms and end-user complaints. MIS students who take this course are placed in a setting where there technical knowledge is shown to be necessary but not sufficient to wrestle with the systems development issues that many cases illustrate.

Thus, for an MIS student, this new course offers the opportunity to develop broader business perspectives, to practice their analytical and critical thinking skills in broader business contexts (rather than simply focusing on finding technically correct solutions, case analyses require students to discover organizationally relevant solutions that satisfy customer and managerial expectations). MIS students are required to develop their written and oral communication skills, again, focusing more broadly than communicating with only fellow MIS professionals ... but expanding to communicate with users and managers. Finally, the entire

focus of the course is on the application of MIS into the fabric of the host organization, thus aligning MIS strategies and initiatives with those of the host.

These course characteristics line up quite nicely with the requirements specified by both the major accrediting bodies that relate to MIS programs: AACSB & ABET. The relevant AACSB guidelines are included in Appendix III and ABET guidelines (for computing programs) are shown in Appendix IV. The new course contributes to standards and guidelines from both organizations as highlighted in the two appendices.

6. CONCLUSION & FUTURE WORK

The MIS group at UNM has fundamentally changed the course design and delivery for our introductory MIS course from a traditional "nuts 'n' bolts" orientation coupled with personal productivity software coverage to a standalone, integrative case study approach. The course redesign was aimed at improving the relevance of the course and more deeply engaging management students in the topics specified by IS2002.p0 and IS2002.1.

At this point, we have only anecdotal evidence that we are meeting our goals and, when formal course evaluation data become available, we will use that feedback to refine the course.

7. REFERENCES

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Appendix I

Original Request for Information Sent to ISWORLD on June 19, 2003 Subject: Course Design: Intro to MIS From: rattner@unm.edu Date: Thu, 19 Jun 2003 16:55:21 -0600 Hello colleagues, We are implementing a fundamental change to the design of our (required) Introductory MIS course for BBA undergrads (300/Junior level course). We have removed the hands-on Office Suite skill- building from the course, and shifted to a course focusing 100% on MIS concepts & case studies. We have added Business course pre-regs and maintained the introductory computing class (100/Freshman level) as a pre-req. I'm interested to know what other schools are doing in this regard, and how far "out there" our approach is! Here are my 5 questions: (1) Do you have a Required Intro MIS course? y/n If so, what is the content of this course: MIS concepts ____% MIS case studies % Office Suite skills % Total = 100% (2) Are there any Computing pre-requisites for the current course? If so, how many? (3) Are there any Business pre-requisites for the current course? If so, how many? (4) Are you considering any changes to the content, pre-reqs, or course delivery methods within the next 2 years? If so, pls describe briefly. (5) Are you accredited by AACSB? ABET? Other (pls specify)? --> Please feel welcome to add comments! As is customary, please direct your replies to me at rattner@unm.edu and I will post a summary of the results to our list. Many thanks for spending a few minutes on this, Laurie Schatzberg

University of New Mexico

Appendix II

Syllabus: MGT xxx Spring 2003

Course Goal Learn the foundation concepts of management information systems and to integrate these MIS concepts with those from other management disciplines such as marketing, finance, human resources, organizational behavior, operations management and accounting. Make informed and insightful decisions concerning the use of information technologies and tools to achieve *business* goals and objectives

Survival Tips

Follow these tips to achieve maximum results for your efforts:

- Come to class on time and prepared.
- Keep pace with the readings and written assignments.
- SAVE & BACKUP your work early & often.
- Use spelling and grammar checkers. Grades for all take-home written assignments will be evaluated both on content and grammar/organization.
- Submit all assignments at the beginning of class.

Honor Code

Each of us is to be academically honest, and we will function as though we have a formal honor code in place. Dishonest activity in class work will result in disciplinary action for those involved. The consequence of cheating, helping others to cheat, or allowing others to cheat from you is failing the course. Other penalties will be considered in consultation with the department chair, dean, and university administration.

Communications

A LIST (xxx-L@yyy.edu) has been established for this class this semester. You are encouraged to use the LIST to stimulate discussions, ask questions & provide answers to fellow students. In addition, I use the LIST to communicate and clarify class requirements not presented elsewhere.

The syllabus and most assignments will be available on the web through the ASM home page (**Course Data Files: YourInstructor**).

Course Assignments & Weights

First case brief (#1)
Case Briefs (#2 - #4 @15 % each)
45%

Optional Research paper/case study
 0% or 30%

Proposal

Research Paper/Case Study Presentation (by invitation only)

Case Impact Analysis

Based on ongoing analyses of **each** the case studies <u>assigned</u> (whether or not we discuss them in class), students will develop an impact analysis of (1) lessons, (2) pitfalls & problems, (3) non-MIS interdependencies, and (4) application to another setting. Whether or not you also write a formal brief on the case, do write an impact analysis. The purpose of this assignment is to integrate and reinforce the interdependence of MIS issues and topics with other organizational concerns. The lessons, problems & applications can come from any area relevant to you/your career interests and/or experiences -- and are <u>not</u> intended to focus on information systems functions.

Approach this assignment much like a journal. Early entries can be revised as the course progresses and new insights are revealed. Allow one page per case study (max), with headings on each page corresponding to the four required components above. Summaries are due in **Weeks 4**, **8**, **12**, **and 15**.

To be effective, the impact analysis must be succinct, and outline/bullet list format with very brief explanations is appropriate for components (1) – (3). For component (4), one to two paragraphs

should suffice. Apply insights from 1-3 to a setting with which you are familiar: work, school, volunteer activity, etc. You may use different settings for different cases; however, the more deeply you understand a given setting, the more likely it is you will be able to apply many of the lessons to that particular setting. The application could be retrospective (something that's already happened) or prospective (something you anticipate, want to cause or want to prevent).

Case Briefs (1 or 2 students)

Students will complete briefs of four (4) cases. Briefs are due at the start of class in which the case will be discussed and must be submitted prior to class discussion. Briefs may be completed by individuals or in pairs, but will not be accepted after the discussion has begun.

Write your first case study by Class #3, so that you can use the feedback to improve your work for the remaining 4 case studies.

Briefs are to be succinct but comprehensive in scope. They should demonstrate your understanding of the *important* concepts covered or implied by the MIS case and your ability to relate the concepts and issues to other organizational functions.

Research Paper/ Case Study

Week/Dates

Read and understand the **Case Summary Analysis** assignment above.

If you choose this option, you will further choose whether to write a research paper or to develop a business case study. In either case, you must submit a *proposal for your work no later than*Week 5. The proposal will be graded Pass/Fail. Students with a passing proposal may proceed as planned. Those with a failing proposal are required to rework their proposal.

For both the research paper and the case study, you will work independently and are expected to create original work, and cite references used. (Details will be provided.) Papers and case studies should be 15-20 pages, unless students receive prior approval for longer works. Grading will be based not only on content, but also on clarity, organization, and readability.

Draft papers and case studies are due <u>Week 9</u>. Final papers and case studies are due <u>Week 14</u>. **Textbook** Managing Information Technology: What Managers Need to Know, 4th edition, by Martin, Brown, DeHayes, Hoffer & Perkins, 2002.

Structure of Class Session This class will be highly interactive. You are encouraged to ask questions and to find answers from within your own business discipline and background. We will use class time for presentation and discussion of concepts and cases.

Tonics / Paguirements / Additional Items

week/Dates	i opics/ Requirements/ Additional Items					
Week1	MLK Holiday Subscribe to m	,	Know the syllabus details			
Week2		chnology as an Enabler: Chamber of Commerce	Text 1 for class discussion only			
Week 3	Information Te * IMT Custom	chnology I: Text 2 & 3 Machines				
	Week 4 Information & Johnson & Johnson	ation Technology II: Tex hnson	xt 4			
Week 5	Guest speaker:	Karen Blackmore, PNM	1 – Applications Portfolios			
Week 6		echnology: Text 5, 6 (A) & *Ameritech Publi	ishing			
		merce Applications: Tex sket Co & * Mezzia, Inc.				
Week 8	Acquiring/Integ SDLC, Make or	grating Info Systems Tex Buy	kt 8, 9, 10			

Week/Dates	Topics/Requirements/Additional Items
Week 9	Case Studies Text 8, 9, 10 * CIPI & * Methodist Hospital
Week 10	Acquiring/Integrating Info Systems Text 11, 12 End-user Computing & IT Project Management Read MidState (B) for class discussion only
Week 11	Case Studies Text 11, 12 * NSWC & * NIBCO
Week 12	Information Management: Text 13, 14 Setting Direction & Managing Resources * Clarion School for Boys
Week 13	Case Studies Text 13, 14 * Merging IT (A) & * Merging IT (B)
Week 14	Managing IS: Text 15 *Cummins (A, B, C)
Week 15	Workplace Ethical Issues (Handouts) * Mary Morrison's dilemma & * SEDA