

WASHINGTON STATE UNIVERSITY
College of Business Administration
MIS 322
Systems Analysis and Design
Fall 2008

Class Time: Thursday 12pm - 2:45pm

INSTRUCTOR: Greg Rose, M.B.A., Ph.D.

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OFFICE HOURS: Thursday: 3:00-5:00pm & by appointment

COURSE PREREQUISITES

MIS 250

REQUIRED COURSE MATERIALS

Text: Valacich, J. S., George, J. F., & Hoffer, J. A., 2006. Essentials of Systems Analysis & Design, 3rd edition. Prentice Hall, Upper Saddle River, NJ. ISBN: 0132196530

Course Syllabus, Schedule and Assignments: Nearly all the handouts and deliverables for this course will be transmitted on-line. These supplements can be printed from the MIS 322 web page. Announcements will be made in class. It is important to attend class regularly to receive reminders, modifications, and other information about the course.

All materials generated for this course are copyrighted. This includes but is not limited to syllabi, quizzes, exams, notes, lab problems, in-class materials, review sheets, and additional problem sets are copyrighted. Please do not copy or distribute course materials unless you are expressly granted permission. This syllabus and the course materials are the product of work of Greg Rose and other faculty at WSU unless otherwise noted.

COURSE DESCRIPTION

Management Information Systems (MIS) is not all about the code you write. Nor is it about cubicles, computer screens, reports or technology. Rather MIS is about the people and the intersection between computers and people. Understanding business, processes, and people and how these elements function in concert with each other will help MIS professionals create more meaningful and useful systems.

The analysis of an organization and the subsequent design of computer systems to meet business requirements is at the heart of the information systems (IS) field. This course addresses the multiphased process for developing information systems by following the

systems development life cycle, although alternative methodologies are also covered. The course concentrates on methods, techniques, and tools used to determine information requirements and to document these requirements in a thorough and unambiguous form. Students learn the discipline of systems analysis and logical design through a real-world project approach. The course also introduces computer-aided software engineering (CASE) technology.

Information systems have long been used to automate processes and improve organizational productivity and memory. Managers are currently employing business process reengineering, organizational downsizing or rightsizing, total quality management, and a host of other management techniques, which utilize information systems as the engine of productivity and the enabler of organizational change and competitive advantage. Now more than ever, the strategic management of information systems is critical. Consequently, the purpose of this course is to help you to learn the knowledge, skills, methodologies, techniques, tools, and perspectives essential to successfully developing information systems.

There are three important aspects of this course. First, because systems development is firmly rooted in an organizational context, this is not merely a "technical" or "computer" course; this is a "business" course. Systems development is increasingly becoming more strategic, so this course will have a "strategic business" and "sociotechnical" rather than a purely technocentric perspective. Second, it must be noted that success in systems analysis and design requires not only skills in systems methodologies and techniques, but also in the management of people and projects. Thus, this course will focus on the roles, responsibilities, and mindset of the systems analyst as well as the systems project manager rather than those of the programmer. Third, at a very fundamental level systems development involves solving problems and communicating problem diagnoses and solutions to others. You will do a great deal of speaking, writing and critical thinking in this course. In fact, these may be the most important aspects of this course.

COURSE OBJECTIVES

Students will apply methodologies used in developing information systems and understand the considerations involved in choosing alternative methodologies. Students will produce the requisite systems documentation at each point in the analysis, design, and implementation of an information system, and do so with clarity and completeness.

Students will analyze a business' need for information and will develop an appropriate strategy to solve the problem and provide the required information service.

Students will apply various information gathering techniques for eliciting user information requirements and system expectations.

Students will develop and interpret a variety of system description documents, including data flow diagrams, decision tables, as well as screen, form, and report layouts.

Students will develop written presentations of system specifications that are clear and persuasive.

Students will develop a prototype for a "complete" information system that includes project management documents, pseudo code, prototype GUI and report designs, testing procedures, program and user manuals, and system conversion plans.

Students will use software project management procedures for managing systems development activities.

Students will use system-testing methodologies for assuring the correctness and completeness of their information systems.

Students will be exposed to system maintenance issues and the system change request process.

Students will learn to self evaluate their work in an effort to become more capable of meeting the needs of potential clients in a competitive marketplace.

COURSE APPROACH / TEACHING METHODS

To meet the course objectives, the course will consist of the following. We will rely on the textbook to provide detail description of the topics. The class time will be devoted to addressing the key issues, clearing up questions, discussing case and homework problems, working on projects with your groups, and having your group meet with me to monitor and aid your progress. Lecture outlines and other information will be available on the course home page. Students are expected to bring the outlines to class. It is important to check the home page frequently to receive reminders, modifications, and other information about the course.

This course primarily deals with computing-related issues however, there are other ways in which the class can help prepare you for your first job...or getting your first job. You are expected to use a professional demeanor during our interactions. You should be as articulate, respectful, and forthcoming with me and your classmates as you would your employer. The relationship with me is one of Manager/Employee as well as Teacher/Student. This can be applied in several ways, for example, when a student offers an excuse for late homework it is seen as an employee not meeting a deadline. MIS graduates from Washington State are rapidly gaining a reputation for being exceptional employees who generally quickly move into leadership positions. It is our obligation to those that recruit from Washington State University to produce students who will be the type of employees they expect.

The course will be taught in an interactive fashion and students will be expected to actively participate in the learning experience. One or more of the following learning techniques will be used:

Interactive lectures

Small group presentations

Individual student presentations

Small group discussions

Self-evaluation by students with feedback from the professor

Case Analysis

In-class writing and/or problem solving assignments

Home assignments

STUDY RECOMMENDATIONS

Each of us has developed study methods as we have worked our way through school (up to and including the perfection of the "all-nighter"). Each of you knows best how to study given your habits, personality, learning style, etc. Even so, I think it is useful to share study methods previous students have found to be effective. To that end:

You are encouraged to outline each chapter as you read it.

I will post an outline of my lecture notes on the Course Schedule web page for you to download and print prior to class. The intent here is to create a mechanism for more effective note-taking during class and an aid in your studying.

It is especially helpful if you take notes on the lecture note outlines BEFORE coming to class. Doing so will go a long way toward preparing you for lectures. Lecture can then be used to "fill in the holes."

As you read the textbooks, pay special attention to the bold-faced terms and figures (READ THE PICTURES!!!).

While material in the notes has information that I think is important, it is not wholly indicative of test material and should not be your only study aid. You are responsible for any material in an assigned chapter, case, or homework assignment, in addition to any material discussed in class.

EXAMS AND QUIZZES

There will be two exams. Dates for these are noted on the schedule. The total value is noted below. Questions on exams may be any combination of essay, problem, short answer, true/false, or multiple-choice. All material assigned for reading or reviewed in class is fair game for an exam or quiz question. That said, I expect the exams to primarily be a combination of "Key Points Review," "Key Terms Checkpoint," and "Review Questions" at the end of the assigned chapters. So make a point of reviewing each of these sections in your book as you go along.

PROJECT

An important part of this course is a "Term Project" wherein you will have an opportunity to analyze user requirements, and design (and thereafter implement) an information system for a "real" client organization. Students will work in self-directed and self-managed teams to perform the analysis, design, and implementation of an information system for an actual organization. The project details will be announced and discussed in class throughout the semester and are available on the course Web site at <http://www.vancouver.wsu.edu/fac/roseg/MIS322/project322.html>. The foundation for the project description was designed by Professor Joe Valacich at Washington State University and has been modified by Greg Rose.

Note that project status reports will be requested at various times during the term as announced in class. The purpose of a status report is to document accomplishments and delays from the planned schedule, and to indicate changes in project expectations. A

status report contains a section for the overall project (written by the project leader) and a one-page memo from each team member outlining his/her status on current and just completed responsibilities. The reports from individuals are written to the project leader, and appended to the leader's overall project status report given to me. The purpose of these reports is to keep me informed about group progress (much like a Director of Systems Development might oversee ongoing projects). Use the status report to indicate progress against the baseline project plan, and to raise questions for the instructor.

Each deliverable will be reviewed for grammar and spelling, professional appearance, quality of executive summary, organization, and content. However, the most important deliverable is the final one and will carry the most weight. The point of the project being piecemeal is to keep giving you feedback to help you refine your work. Since most of your grade is based on the final deliverable, each of these prior steps are just meant to give you milestones to reach, just like a real project is supposed to be done in steady pieces that lead to the end goal.

Peer evaluations are a very important part of the grading and emphasize the importance of trust, cooperation, responsibility, and team-work in group projects. As outlined in the course syllabus, the project makes up 34% of your course grade. Failure to do your work and make a good contribution to your team could result in you losing a significant amount of project points if your teammates rate you poorly. Thus, peer evaluations are meant to be honest and constructive, and are treated as real elements of grading by the instructor.

Grades for the project will be evaluated according to the following two areas: professional quality and scale. Quality will be judged by characteristics like clarity, professionalism, and following standard procedures for diagramming and building forms and reports. Scale will be the size of the project, which will be measured with such means as number of data flow processes modeled and supported by the required other modeling techniques (such as data dictionary, logical modeling, etc.). I will also try to evaluate the relative time put in by each person and use number of hours put in by the group to support my judgment about scale. Of these two measures, Quality is the most important, then scale. But both are important. I will rank order the groups according to each of the two and then come up with my grade. And then based on teammate evaluations and based on my evaluation of the contribution of each individual (which sections were worked on by them; how much did they seem to know during meetings; etc.) I will move individual scores up or down accordingly. In extreme cases the amount taken off of one person's grade will exceed the amount added to the other group members.

Note that each individual is responsible for knowing how to do each step in the project and will be tested as such on the exams. Make sure that each person in your group knows how to make and explain such methods and diagramming techniques as the DFDs and logical process models (pseudo code and decision tables) included in your deliverables. If asked, everyone should be able to read these things (and make them).

GRADES

Our mission is to build a “world class” MIS program with high standards. In order to help ensure high quality and consistency across the MIS curriculum and throughout the MIS program, it is strongly recommended that at the end of each semester in each MIS class section, MIS faculty members and instructors end the semester with a final, overall grade point average for each class that complies with the ranges shown below. Additional information is provided showing how grade points correspond to letter grades.

| Grade Distribution | | | |
|--------------------|-----------------------------|--------------|-------------|
| Course Level | Recommended Final Class GPA | Letter Grade | Grade Point |
| 100 & 200 | 2.5 – 2.9 | A | 4.0 |
| 300 | 2.7 – 3.1 | A- | 3.7 |
| 400 | 2.8 – 3.2 | B+ | 3.3 |
| | | B | 3.0 |
| | | B- | 2.7 |
| | | C+ | 2.3 |
| | | C | 2.0 |
| | | C- | 1.7 |
| | | D+ | 1.3 |
| | | D | 1.0 |
| | | F | 0.0 |

As you can see, the college has set a target GPA for this course as between a 2.7 and a 3.1. With this distribution as a guide, student work will be judged relative to their peer group. In essence, *in circumstances where there is no absolute right answer to an assignment, case, discussion question, quiz question, or exam question, then grades will be evaluated relative to your peer group. I cannot predict exactly how your peer group will perform from semester to semester so I can only say that to a certain extent all these subjective grade items are competitive. What this means is that you need to be conscious that your classmates may be putting in what you feel to be extra effort and that this could make their deliverable superior by comparison. In those circumstances, the better deliverable will likely receive a higher score and the other one a lesser score. So I encourage you to try your best and put in extra effort if you are hoping for a high grade.*

Assignments vary in nature – there intent is to cultivate creativity and knowledge in applying course concepts to systems analysis and design. This course will utilize quizzes, case studies, homework assignments, a group project, and written exams to help build and assess knowledge relative to course content. ALL assignments must be presented in a professional manner. Documents with multiple pages should be stapled or presented in a report cover. Neatness, spelling, and grammar do count, and you will be penalized if your assignments are lacking in these areas. Use the spell check and grammar check features

of your favorite word processor if you need help in these areas. **Turning in a handwritten assignment or emailing an assignment instead of bringing a printed copy to class without express prior permission from me will result in a grade of 0 for that assignment.**

As indicated, you will be expected to turn in your assignments in a form that is professional. This means you need to write professionally and proofread your documents effectively (up to 25% of your grade on written assignments is writing quality). To promote effective writing techniques, extra consideration is given to any written assignment if you attach proof that you went through the WSU Writing Center for help. All students can send these documents to the people at the Writing Center via the Web at <http://owl.wsu.edu/>. Likewise, for faster service, if you are on campus in Vancouver, you can physically go to the Writing Center on that campus (see <http://www.vancouver.wsu.edu/programs/writing/home.htm> for details). To get effective help from the Writing Center, you need to include your assignment specifications and your sources so they can aid you in context. You should also make it clear that you are a WSU student so you get preferential treatment.

And note their objectives for helping you (from <http://owl.wsu.edu/>):

“OWL POLICY: OWL tutors are trained to respond to the conceptual and structural issues of your writing before they comment on issues of convention and correctness. Consequently, you might expect that the tutor's comments will primarily be about the focus of your piece, the supporting details you have provided and the organization of those details. Tutors will comment on issues of convention and correctness (spelling, grammar, punctuation) if there are obvious patterns of error, but they will not correct your essay for you. The OWL is not set up to be a proofreading service.”

"Writing quality" will be judged on the following:

1. Introduction: Clearly identifies and explains issues being addressed.
2. Logic/Flow of Argument: Clearly develops logical argument for point of view.
3. Support for point of view articulated: Provides strong and valid support for point of view.
4. Conclusion: clearly follows from argument developed.
5. Usage: Grammar, punctuation, spelling are correct.

In rare cases, you can get full credit on a written assignment without going to the writing center. However, most times, a ceiling on a grade exists for all papers turned in without help from the writing center. Also be aware that your classmates will have the writing center available for them as well and if some of them use it and you do not, you will be judged less positively relative to them.

GRADE VALUE BREAKDOWN

Student performance will be assessed by using the weights provided below to compute the total score. Project deliverables are designed to reinforce the various concepts and frameworks discussed in class.

Midterm Exam: 33%

2nd Exam: 33%

Final Project: 34%

Note about Grading of Individual versus Group work

Your final grade is a composite score of your performance on individual assignments (e.g., exams, homework, quizzes) **AND** your performance on the group project. **YOU MUST PASS BOTH INDIVIDUAL AND GROUP COMPONENTS** to pass the course. In other words, failure to pass the individual component of the course will result in a final course grade of "F" regardless of the group project score. Similarly, failure to actively participate in the group project (as determined by your group members and peer grading) will result will result in an "F" regardless of your performance on the individual component of the course.

SELF EVALUATION

In general I will be marking your five deliverables with a scale of check-, check, check+. These marks reflect the following feedback from me:

A √- represents that you have not met the minimum requirements for what you have turned in.

A √ means that you have done an acceptable job of meeting the minimum requirements or only exceeded these criteria in a less than remarkable amount.

A √+ means that you have chosen to go significantly above the minimum requirements and have done an acceptable job **OR** you have exceeded the minimum requirements somewhat but have done an outstanding job.

CLASS SCHEDULE

The class schedule is located in the class web site.

LATENESS AND MISSED DATES

Students are responsible for providing satisfactory evidence to me to substantiate the reason for any class absence or late assignment. If no evidence is available, I will decide whether makeup work will be allowed. **I am under no obligation to provide an opportunity for make up work because of an unexcused absence.** If the absence was excused and notification was properly made, I will usually provide an opportunity to the student to make up exams, assignments and other work missed, or I will provide a satisfactory alternative. Note that it is **ALWAYS** better to inform me of your absence **IN ADVANCE** whenever possible.

Meeting deadlines for class assignments is important. Thus, unless otherwise noted, all assignments are due at the beginning of class on the date announced. There will be a penalty of 20% of the assignment's possible grade for assignments turned in by one hour into the class period. **All other late assignments will be graded at the discretion of the instructor.** Generally speaking, assignments turned in more than one hour after class begins will be treated as a missed opportunity and result in a grade of zero unless there is a medical emergency to you or your immediate family that required you to not be available. Assignments turned in after the class period will be graded for the purpose of providing feedback to the student. Exceptions to this policy will only be granted in cases of unavoidable personal or family emergencies. **Excuses such as running out of paper or ink cartridges for your printer, not being able to get away from your job for routine tasks (you need to balance your job and this class...if you cannot do that please consider taking this course next year when it is offered at a different time of day), finding a virus on your diskette, not being able to get onto a computer or printer in one of the labs, or having your computer's hard drive crash at the last minute are not acceptable excuses.**

The reason for this policy is that this course is trying to expose students to the realities of the competitive world of competing for bids and fulfilling contracts as a systems analyst. Often, when a bid is due to a prospective client, any submissions turned in even 1 minute after the deadline are not accepted and all of the work put into the bid is wasted. I am slightly more lenient and will allow deliverables to be turned in after class starts but with a 20% penalty if turned in within the first hour.

OTHER CLASS POLICIES AND INFORMATION

STUDENT CONDUCT

Per the WSU Vancouver Student Handbook, students are, "Expected to show due respect for ...the rights of others." For example, "While students have the right to freedom of expression...this expression cannot interfere with the rights of others or disrupt the processes of the University. Any malicious act which causes harm to any person's physical or mental well being is prohibited." Such activities include sexual harassment, discrimination, intimidation (e.g. bullying or belittling fellow students), disruptive behavior (e.g., loud talking in class, or slanderous comments made about other students or faculty (e.g., false and unsubstantiated claims of discrimination made for the purpose of improving grades). Students should be familiar with the Washington State University standards for student conduct presented in the WSU Vancouver student handbook (available from student services). "Students who fail to conduct themselves properly are subject to discipline, which may extend to temporary or permanent removal from the institution."

Policy on Threatening or Intimidating Behavior

Threatening or intimidating behavior is prohibited by the Legal Code of the State of Washington. It is unlawful to interfere by force or violence with any administrator, staff member, faculty member or student (RCW 28B.10.570). Intimidating a public servant is a class B felony (RCW 9A.76.180).

Professionalism

Students who are uncooperative, rude, abusive to the TA's, instructor, staff members, or other students, whether in class or outside class, will be penalized. Students who habitually miss class, show up late, bring meals into labs or lectures, read the paper or a magazine during class, cheat on assignments, tests or exams, use computers in class for anything other than approved class-related activities, or are disruptive in any other way, will be penalized.

Academic Integrity

Academic Dishonesty – Students are expected to uphold the WSU standard of conduct relating to academic dishonesty (see WSU Student Handbook, WAC 504-25-015). Students assume full responsibility for the content and integrity of the academic work they submit. The guiding principle of academic integrity shall be that a student's submitted work, examinations, reports, and projects must be that student's own work. Students shall be guilty of violating the honor code if they:

1. Represent the work of others as their own.
2. Use or obtain unauthorized assistance in any academic work.
3. Give unauthorized assistance to other students.
4. Modify, without instructor approval, an examination, paper, record or report for the purpose of obtaining additional credit.
5. Misrepresent the content of submitted work.

The penalty for violating the honor code is severe. The first offense will result in a grade of zero on the assignment/exam in question. A second offense will result in a failing grade for the course. All offenses will be reported to the Office of Student Affairs. If a student is unclear about whether a particular situation may constitute an honor code violation, the student should meet with the instructor to discuss the situation.

Reporting Violations

Anyone wishing to report violations of the student or faculty conduct code should use the following procedures. Whenever possible, collect any documentation of the offending activity (e.g. written comments from other students or faculty, e-mail messages etc.). It is also useful for students to put their concerns in writing to faculty or administrators pursuing the matter can accurately convey the student's concerns. Present the complaint and supporting documentation to the appropriate faculty member or administrator. The

process should begin with the class instructor. If the instructor is unable to resolve the matter to the student's satisfaction, or if the problem behavior spans multiple classes, or if the nature of the problem makes this impossible, the complaint should be forwarded to the Program Director. If the matter is still not resolved to the student's satisfaction, the complaint should proceed to the Associate Dean, then the Chancellor and finally to the University Ombudsman. See the WSU Vancouver student manual for more detail concerning this process.

STUDENTS WITH DISABILITIES

Disability Accommodations – Reasonable accommodations are available for students who have a documented disability. Please notify the professor during the first week of class of any accommodations needed for the course. Late notification may cause the requested accommodations to be unavailable. Students needing accommodations must have them approved through the Associate Director of Student Services, Student Services Building, Room 203.

Access to Computers

To complete the class assignments as well as the class project, students will need to have access to a personal computer, the Internet, and other course related software.

ON-CAMPUS COUNSELING is available from Dr. Beth Cook in VCLB 160D on T, W, Thurs
Phone 546-9446