

Eastern Connecticut State University
SCHOOL OF EDUCATION AND PROFESSIONAL STUDIES
DEPARTMENT OF BUSINESS ADMINISTRATION
Systems Analysis and Design (BIS 370) 3.0 CREDITS
for Section 1 Wed 4-6.45 pm Webb 307
Spring 2010

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Student consultations during office hours: Tues 10-10.45 am, 1-1.45 pm, . ; Wed 1.30-3 pm,; Thursday 9.30-10.45 am.; 4-4.15 pm .

The students are expected to check the course web site at least two times a week for instructions related to the course.

Students should use only Blackboard email for communication. The main communication with the instructor and the students will be only via the webct email system and anything else needs to be used only in case of a last resort. If you cannot attach your assignment from home for any reason you have to use the computers in the labs at ECSU. If you cannot attach at ECSU as well you have to try another computer or you have to contact the ITD help desk for assistance with your user profile or your computer settings.

Students should communicate with each other only via Blackboard Vista and should arrange regular instant sessions in the Blackboard chat room that corresponds to their group number allocated by the instructor..

Face to face section students are expected to attend every session. Every week students will work in class on a weekly assignment due on the same Wednesday. Students need to be prepared for those tasks before the class. In order to get a good grade for student participation all week assignments have to be completed by the end of the class session for the students.

Tests 1 and 2 and the midterm exam will be in class but we will have also other work in each of those sessions to complete. The duration will vary but will not be more than 75 mins. The final exam on the Wednesday in the exam week at 5 pm. As these exams and tests will be also open book that means that the questions will not be trivial out of the book but rather they will be of applied nature requiring very good knowledge of the material and excellent preparation. They will timeout after the expiration of the test or exam but the latter will be designed for the average student to be able to complete the exam or test. However one cannot expect that the student may use the book to learn the material and fulfill the task required as there will be no time for that.

Deadlines are declared in the schedule below and in the links for the corresponding elements in webct, by 11 pm on the particular day. It is very important that you stick to them. You can submit without penalty within 3 days from the deadline which usually captures all cases of family emergencies or a short illness. **If a submission is made between 4 and 7 days after the deadline for whatever reason, the penalty will be 20% of the corresponding grade. The assignment will not be available at all after 7 days – hence the penalty will be 100%.** If you have a medical illness exceeding 3 days then submit your doctor's note in person to the instructor and you can then submit via Vista email as an attachment the missing assignment.

Students in the two person teams for the two projects have to submit each the project reports. If one student is reported to me via Vista email by the other that he/she does not prepare for group meetings (face to face or virtual) and does not cooperate for more than 10 days I have to be notified in Vista email by the other student asap. Then we have to meet with the two students 15 mins before the next class session in class or in my office hours for which I will notify them by email. *If a student continues not to perform for another week then the student will have an F grade for the course as the projects are an essential part of the final grade and will have to repeat the course.* New teams will be formed of those remaining students.

For an assignment or a project you **must submit only 1 (ONE) only MS Word file that includes the complete documentation for it, including any drawings, tables etc.**

Any drawings must be created in MS Visio (you must obtain a copy as an ECSU student – you will get instructions from a student worker. Alternatively you can download Visio from the MS web site as a trial version. Please note that **you must not submit any separate files with drawings in Visio format – instead any drawing must be pasted in the respective MS Word document with answers for the** particular assignment or project. An assignment will not be considered if any drawings are not inserted (pasted) in the Word file. For your large project you will need to design a spreadsheet model for breakeven analysis which must be submitted in two ways – as a pasted model and diagrams in the report and as a separate spreadsheet file as I need to see the formulae in it.

You do not need MS Project software as we cover only the principles of project management in chapter 2 while the BIS program has a separate subject BIS442 on IT Project management when you will need that project. You will be drawing Gantt charts in this course by using MS Excel as its rows and columns allow showing well activities and their durations (as a sequence of X letters, its length corresponding to the length of the activity, considering a column width to be equal to 1 month) .

Course Catalogue Description BIS370:

Pre or Co- requisites: BIS361 or equivalent

Provides basic techniques for systems design and development, focusing on the links between BIS systems and their users. Explores the roles of systems analysts and project managers, and the modeling and design tasks that they face. Includes implementation of application packages and enterprise resource planning.

Course learning objectives: After the completion of the course you will be able to:

1. Develop an understanding about the major concepts applicable to systems analysis and design.
2. Understand and apply the work system method to analysis of business problems.
3. Identify the types of systems models that are relevant for each phase of systems analysis and design and focus on Object Oriented Models.
4. Understand management issues in analysis and design.
5. Apply software packages for systems modeling
6. Develop ability to conduct a team analysis and design project.

Personal development student goals: The above goals will be pursued through the parallel development of analytic and information search skills, communication skills, development of self discipline and ability to cope with change and work under pressure individually and in small teams.

Methods and instructional materials employed: The course objectives will be pursued through class discussions, small group work on a project, work with the textbook (face to face group- bring it to class please), through weekly assignment, library and Internet search. Every Vista unit contains solutions of selected end of chapter problems that the students are expected to study on their own

BEFORE the weekly assignments are due as preparation for them as those assignments are expected to be completed ideally by the end of the class session.

Required textbooks: J Valacich, J George, J Hoffer, Essentials of Systems Analysis and Design, Third Ed, Prentice Hall 2006 .

S Alter, articles on the Work System Method, available in subject resources of the Blackboard course

Additional materials that are relevant for particular topics will be recommended in class additionally. You have to prepare in advance for every week, following the schedule below.

Requirements for completion of the course: To successfully complete this course the student must pass the examinations and complete the miniproject, the large project and the weekly assignments. For non submission a student gets 0%. Grading is as follows:

Mini project	12% (v.1-6% , v2-6%)
Midterm exam	15%
Large Term project	25% (v1.-13%,v2-12%)
Two quizzes 2 and 3% each	5%
9 weekly assignments (WA) 3 % each	27%
Class/online participation	6%
Final exam	10%

The composition of your teams will be of 2 persons only for both the mini and large projects. If you have preferences to work with a particular person please inform your instructor by the first Friday of the semester- otherwise you will be placed in a team by the instructor.

You will be getting your team project description in the form of a detailed case study describing the results of the requirements determination phase of a project. You will find instructions on the deliverables from the project in the Blackboard site for this course and also at the end of the syllabus.

Your midterm grade is based on WA1-WA4, Midterm test and Test1 as a % result out of 29 points.

The deadlines are to be observed. See the policy on penalties above. If you miss an exam or a test, please provide a certificate to the instructor at the make-up quiz/test to be held always 7 days after the original one again online on the next Monday at 10.30 pm.

The **grading scale** will be 93-100 =A; 90-92=A-; 87-89=B+; 83-86=B; 80-82=B-; 77-79=C+; 72-76=C; 70-72=C-; 67-69=D+; 63-66=D; 60-62=D-, 0-59=F.

COURSE SCHEDULE

Schedule of sessions: Sometimes there will be lectures, sometimes video presentations or small group work. The student is supposed to prepare for each session in advance covering on their own the material. The sessions in class will be in the form of a review of important highlights of the particular chapter, quizzes and exercises. Please bring your text books always to class.

Unit	Lecture Topic	Reading Assign	Projects/Assignments Announcements
One, starting 01.27	Introduction To The Course. Ch 1 Valacich Alter, the 2002 and 2008 EJIS papers on the WSM	Ch 1 Valacich Alter the paper on WSM in Subject resources	Project assignment and team formation- teams of 2 students to be sent to you in a Blackboard email by the first Saturday evening.
Two 02.03	Ch 2 . Valacich Alter's papers on WSM in the folder in Subject resources and especially the fourth file Applying WSM and developing WS snapshots that contains examples	Ch 2 . Valacich Alter's papers on WSM	Weakly Assignment 1 (WA1) due 02.03 (for the face to face group they are expected to complete it individually by the end of the class session for best grades, at latest by 11 pm the same day and submitted electronically via Vista using the link in the middle section.
Three 02.10	Ch 3 . Valacich	Ch 3 . Valacich	Test 1 on 02.10 WA2 due 02.10 Students are encouraged to bring to the instructor their miniproject in person on paper during office hours
Four 02.17 and 02.24	Revision ch 3 Ch 4, Valacich	Revision of all previous material + Ch 4, Valacich	WA3 due 02.24 Project assessment by each team in the week 02.17- any questions to be asked in class or by Vista email before that – both on the miniproject and on the large project Miniproject v1. fully completed is due 03.01. so that your instructor can give you feedback by 03.3.

Five 03.3 and 03.10	Ch 3-4 by Stumpf on Event and use case modeling, available in Subject resources in Blackboard	Ch 3-4 by Stumpf on Event and use case modeling,	Midterm is on 3.3 Project work by each team WA4 -03.10 Miniproject v2 due 3.15
Six 03.17 Recess 3.24	<i>Revision</i> Ch 3-4 by Stumpf Ch 6 Valacich	Ch 3-4 by Stumpf on Event and use case modeling, revision, Ch 6 Valacich	WA5-03.17
Seven 03.31 and 4.7	Ch 6 Valacich (cont.) Ch 7 Valacich	Ch 6 Valacich (cont.) Ch 7 Valacich	WA6-03.31 WA7-04.07
Eight 4.14 and 4.21	Ch 8 Valacich	Ch 8 Valacich	Large project v1 due 4.14 Feedback to be provided by 4.21 WA8 due 4.21
Nine 4.28 and 5.5	Ch 10 Valacich	Ch 8 Valacich cont Ch 10 Valacich	WA9 due 4.28 Test 2 is on 4.28 The large Project v2 is due 5.5 by 11.30 pm (reflect the feedback from your advisor from the first version sent earlier to you add also the remaining outcomes in the respective link in Blackboard for V.2. project please.
Ten 5.12	Ch 10 Valacich + Revision project evaluation The exam is Wed 5.17 at 5 pm	Ch 10 Valacich Revision Project evaluation	Exam instructions and Project walkthrough sessions where the instructor will ask questions and the group has to answer – in class on 5.12.

Accommodation of students with disabilities:

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact the Office of AccessAbility Services at 465-0189. To avoid any delay in the receipt of accommodations, you should contact the Office of AccessAbility Services as soon as possible. Please note that I cannot provide accommodations based upon disability until I have received an accommodation letter from the Office of AccessAbility Services. Your cooperation is appreciated.

*Students are encouraged to use the support offered by the **Academic Services Center** located on the ground floor of the Library. Tutoring, Math, Writing, and supplemental Advising Services are available for students in the Center at the following times: Sun. 2-9; M.-Th. 9-9, Fri. 9-5. (Closed Sat.) For further information call 465-4272 or check the ASC website at <http://academicaffairs.easternct.edu/ASC-FAQs.html> ”*

WEB RESOURCES FOR THE STUDENT IN SAD – the site of the book:

http://wps.prenhall.com/bp_valacich_esad_3

Academic Honesty and Writing Policy Statement

Among the primary purposes of a university education is the development of abilities and attitudes necessary to engage thoughtfully and ethically with the ideas of others--so that you make fully, accurately, and appropriately clear in your writing (or speaking) where and how those others have influenced your thinking and your conclusions. These abilities and attitudes are generally part of the larger concept of "academic honesty."

Academic honesty involves taking responsibility for your own education, completing all work required of you on your own, and contributing thoughtfully and fully to any group work assigned or sanctioned by your instructors. In more straightforward terms, academic honesty means not cheating on tests and not plagiarizing.

YOUR Mini PROJECT TOPIC DESCRIPTION

This mini project is the service element of your learning in BIS370. You have to identify any real organizational information subsystem in an organization to which you can get access through work or relatives or good friends (note that single end user systems like word processing, spreadsheets or MS Access systems do not count. The information system should affect at least two business processes and affect at least 2 types of stakeholders and should allow you to analyze how it is used in the work system. Choose information systems associated with places where you have worked or where your parents work or as a last resort at the university – consult with your instructor in week 1 and 2. You have to notify your instructor by Feb 3rd on the chosen work system and information system and provide also a backup option as well – use for that Vista email. The supervisor will respond within 2 days with approval or adjustments of your topic.

Your task is to apply SP, AP and RJ analysis of the problems associated with this work system (see the papers by S Alter, especially the fourth file and previous weekly assignments as a preparation for that). Produce a detailed report identifying what are the problems associated with that system (SP), what opportunities you have identified (AP analysis) and what are your recommendations that you justify for improvement of the work system and its information system (RJ analysis) . You will get feedback to the first fully completed version of the miniproject (you are encouraged to show your work (ON PAPER) to your instructor before the deadline for v. 1. . Please see the example projects in Unit 1 of our course.

Then you have to submit the second version of the paper using its Vista link and also to the supervisor of the organizational unit where the system currently is used and you have to obtain a letter from her/him that the result of your project provided them with insights how to improve their

system (a particular format of the report will be provided by the instructor additionally). Submit this letter to the instructor within a week from the deadline for version 2 either on paper or as a scanned Vista email attachment.

BIS370 LARGE TEAM PROJECT DELIVERABLES

The project documentation is in the form of ONE MS Word 2003 file that needs to have all the components listed. You must submit separately also any spreadsheet models as Excel 2003 or 2007 files but those must be also pasted in the Word document:

1. Define the mission of the business you are analyzing, the mission of this information system.
2. Conduct work system method analysis of the problem and provide a work system snapshot in the documentation and its analysis. Apply the Work System Method to the problem using a corresponding pdf file in the folder labeled Alter in Subject resources of webct, using the questions that will prompt you for the different dimensions of the analysis of the facts. Use the questions SP1-SP5 from page 24 in file 4 in the folder on the WSM in Subject resources in Vista in order to structure the way how you define the problem and as a guideline for any questions that you need to ask your instructor and also for analysis of the situation. Use the questions AP1-AP10 from pg 25 in same file No 4 in the folder on the WSM in Subject resources in Vista to structure your analysis of the problem situation along the dimensions of those questions (some of them may not be relevant to your problem which you can identify yourselves from the level of your knowledge of the problem). On the basis of your work in the previous two steps and applying as guidelines the RJ questions that follow on page 26 of the same WSM file in Vista please (you may find that not all of them are relevant but most of them provide useful dimensions on what your recommendations may focus) . In this way you can have the scope of the project defined and the decomposition as well. This analysis should focus on the work system and only then you will be prepared to discuss the relevant new IT system.
3. Conduct detailed technical, organizational and economic feasibility of the project. If necessary provide some starting relevant assumptions. Use specific numbers in those assumptions and conduct the economic feasibility with them. Provide relevant analysis of every type of feasibility (not general theorizing on what that means but conduct the feasibility analysis!). Provide separately any spreadsheet models required in support and also embed them in the word document as well.
4. Describe the IT project scope. Define possible alternative IT solutions.
5. Divide the project into manageable tasks and subsystems. Define their boundaries and interfaces.
6. Create a preliminary project schedule in the form of a Gantt chart.
7. Identify and assess the various types of risks with this project.
8. Produce baseline project plan.
9. Conduct event analysis and document it in the relevant event table.
10. Produce a full use case diagram including all use cases. Then provide for three of those use cases detailed use case narratives using a template from the chapters on use case modeling.
11. Produce the entity relationship diagram in UML notation (see Figure 6.11 B in the Valacich book regarding how that is done in Visio) within the specified scope with listing of all attributes and specifying min and max cardinalities, simplifying any M:N relationships.
(All items up to point 11 to be submitted by each group to your instructor as version 1 of the large project for feedback by the deadline stipulated in the syllabus schedule, then after getting feedback revise them and add the remaining outputs listed below).
12. Design the human interface. For that you have to document these outputs:
 - Provide the dialogue diagram for the system (see the chapter on the User interface).
 - List in the documentation all the outputs and all inputs of the system.

- Provide detailed design for at least 3 inputs (at least one input document and 2 input screens) and 3 outputs (at least one printed and two screen reports). The detailed design must show the data patterns as well and not just samples of data or blank fields.
- 13. Suggest and justify the appropriate design strategy for your system (see ch 7).
- 14. Define a plan for testing, including as examples at least 3 illustrative test cases (see ch 10).
- 15. Produce a brief plan for implementation and installation of the system (see ch 10).

PLEASE ADHERE EXACTLY TO THE SEQUENCE AND CONTENT OF THESE DELIVARABLES. THEY CORRESPOND ROUGHLY TO WHAT IS DOCUMENTED IN ANY REAL PROJECT IN A SOFTWARE DEVELOPMENT ORGANIZATION.

YOUR LARGE TEAM PROJECT TOPIC DESCRIPTION

Your project is to design a computer based information system for Apache Car Rental company, described in a file in Subject resources in Vista labeled Stumpf ch 3-4 pdf on pages 24-27 (out of 60 when you scroll in an Acrobat reader).

The description of the requirements is usually derived through the requirements analysis methods (reflected in chapters 2-4 of the Valacich book). The case description will serve as the starting point for your analysis and design as if you have already conducted the requirements analysis interviews.

If necessary please add any assumptions on needed data (like those that are needed for some of the aspects of feasibility analysis, especially economic feasibility). Then these need to be specified in your project document. Your documentation needs to contain the deliverables listed here. **I have included three good sample project documents from past years. They gives you a good idea about what is an outstanding quality and depth in working on the project, though each has some deficiencies Their outputs do not correspond exactly to those included in our list this year so you can use them only as an example but follow the instructions AND THE LIST OF DELIVARABLES here**

It will be useful for you to study the solutions of various problems provided in the units (see the files labeled Notes...in each unit) for training purposes and complete the regular weekly assignments before you work on your project. The latter is like a revision of everything we do in the class.