ISE583 - Enterprise Wide Information Systems

Instructor: Richard W. Vawter

Office: OHE 530B

E-Mail: vawter@usc.edu

ISE 583, Fall 2019

Location: OHE 120

T/Th 2:00-3:20 p.m.

Phone: (213) 740-9541

Office Hours: M/W 10:00 - 11:50 am

1:00 - 2:20 pm (except on 1st Wed. of each month)

T/Th. 10:00 - 10:50 am

Class Web Page: http://courses.uscden.net/

Teaching Assistant: Rohan Bhosal, rbhosale@usc.edu

Course Description:

This course is designed to provide the student with a thorough understanding of both the role that Enterprise Resource Planning Systems (ERPs) play in an organization and the challenging task of implementing and managing the Information System (IS) function. student the opportunity to work through many real-life business situations using the SAP ECC system and explore the interaction among the different business processes. SAP is the world's leading provider of Enterprise software designed to integrate every aspect of a company's operation. The hands-on exercises, coupled with the in-class discussions of ERPs, will prepare the student with the knowledge sought by businesses looking to use technology to maintain their competitive edge in the market place.

Objective:

At the completion of the course, students will be able to...

- Describe the role of an ERP in carrying out business processes in a company
- Explain how 'best business practices' are incorporated in an ERP
- Execute an entire business process chain in the following areas

Sales (Fulfillment)ProductionProcurementAccounting

- Strategize pricing, production and sales in a competitive commodity market
- Analyze sales data in an ERP to dynamically respond to changing market conditions to maximize profits
- Expedite production planning and control using tools provided in an ERP system
- Report on the reasons for the success (or failure) of production and sales strategy

Required Textbooks:

- 1. <u>Integrated Business Processes with ERP Systems</u>, by Simha R. Magal & Jeffrey Word, Wiley & Sons, Inc., ©2011, ISBN: 978-0-470-47844-8
- 2. ERP Simulation Game ebooks and account will be available for purchase online a week prior to the start of the semester. Cost \$50 CAD payable online by credit card. You will receive an e-mail from HEC inviting you to set up your account for the simulation games. The first game will be played during the second week of the semester. If you wish to participate, you will have to have purchased your account by then. Participation in the second game at the end of the semester is required however.

Required Software:

- SAP is the leading vendor of Enterprise Resource Planning Systems in the world. USC Viterbi has had an Academic Alliance with SAP University Alliances Program for the past 20 years. Several Viterbi ISE and ITP courses utilize the SAP system as a tool and platform for class Homework.
- You will receive instructions via the class web site on downloading and configuring the software (SAP GUI for both Windows and MAC) to connect to the SAP S/4 HANA system so you can work from your personal computer.
- You will also need Microsoft Excel for analyzing the data from the ERP Simulation Games.

Assignment Policies

- The Assignments dropbox in the class web site "closes" after the due date and time and is replaced by the answer key. You will no longer be able to submit your assignment and your assignment will be considered late.
- No late assignments will be accepted for credit. No excuses! So, please turn in your assignments at the beginning of lecture on the dates indicated in the syllabus!
- No late Midterm Project will be accepted for credit either.
- The <u>self and team evaluations must be submitted before midnight Friday evening</u>, <u>Dec. 6th</u> in order to receive credit. Again, no excuses!

Discussion Board: To aid in completing the homework assignments, follow these steps:

- 1. Re-read the instructions carefully and view the Textbook Demo's which I have placed on the class web site.
- 2. Review the "Discussion Board" section of the class web site's forum for other students' questions and comments or post a question yourself to begin the forum. Students are encouraged to use the Discussion Board to collaborate and help each other solve problems on the homework assignments.
- 3. If you cannot solve the problems by performing the first two steps then you're welcome to contact the TA or see me during my office hours for assistance. (DEN students can arrange a virtual meeting with me via Bluejeans.) Upon finding the solution, you will then be required to post the problem/solution on the Discussion Board for others to view.

Weekly Reviews

- After each week's topic, you will be required to take a short multiple-choice *quiz* online reviewing the material just presented.
- You may take the reviews as many times as you wish. Your highest score will be recorded.
- Failure to complete a review before the first class of the following week will result in a score of "0" for that review!
- Points from your reviews will be totaled at the end of the semester and account for 5% of your class grade.

Simulation Games:

- Student teams will be formed during the semester to play the ERP Simulation Games.
- The first ERP Simulation Game (the Logistics game) will be played during the second week. The purpose of this game is to introduce you to the role ERP systems play in business. (And, of course, the other purpose is to have fun!)
- The second ERP Simulation Game (the Manufacturing game) will be played during the last third of the semester.
- The games can be played in real time remotely by off-campus students by using the GUI.
- Participation in the <u>second</u> game is mandatory for all students. If you have a conflict with other commitments on game days, please reconsider your enrollment in this course.

Examinations:

Exams cover material from the reading assignments, lectures, and lab assignments. The questions will be of the form: multiple choice, short answer, and short problem solving. The exams are all closed book and closed notes. The exams are not considered to be cumulative; however, knowledge and understanding of the material presented in the early part of the semester will be expected.

Midterm: Tuesday, Oct. 8, 2:00-3:20 p.m. in TBD Final Exam: Thursday, Dec. 12, 2:00-4:00 p.m. in TBD

Note: No make-up exams will be offered nor will there be any changes made to the Final Exam schedule as established by the University.

Grading: Grading will be on a straight scale (as opposed to a class curve/average).

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94% and above A
90% - 94% (not including 94%) A-
87% - 90% (not including 90%) B+
83% - 87% (not including 87%) B
80% - 83% (not including 83%) B-
77% - 80% (not including 80%) C+
etc.
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The grades will be calculated by weighing the following work as listed below:

Weekly Reviews	5%	
Average of Assignment Scores	20%	
Midterm Exam	15%	
Midterm Project	10%	
ERP Sim Game		
Practice Game Performance	5%)
Practice Game Analysis	5%	
Extended Game Performance	10%	30%
Sim Game Final Analysis	5%	
Peer Evaluation	5%	J
Final Exam	20%	
	100%	

The Final letter grade is based strictly on the total percentage earned. NO EXCEPTIONS! In addition, no extra credit assignments will be offered.

Students with Disabilities

Any Student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP https://dsp.usc.edu/ Please be sure the letter is delivered to me (or to TA) as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m. - 2:00 p.m., Monday through Friday. The phone number for DSP is (213)740-0776.

Policy on Religious Holidays

The University policy grants students excused absences from class for observance of religious holy days. Students should contact the instructor IN ADVANCE to request such an excused absence. The student will then be given an opportunity to make up work missed because of religious observance.

Students are advised to scan their syllabi at the beginning of each course to detect potential conflicts with their religious observances. Please note that this applies only to the sort of holy day that necessitates absence from class and/or whose religious requirements clearly conflict with aspects of academic performance. Please refer to the Holy Days Calendar http://orl.usc.edu/religiouslife/holydays/

Incomplete and Missing Grades

A grade of Incomplete (IN) "is assigned when work is no completed because of documented illness or other 'emergency' occurring after the twelfth week of the semester (or 12th week equivalency for any course scheduled for less than 15 weeks)."

A grade of Missing Grade (MG) "should only be assigned in unique or unusual situations... for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year the grade is changed to [Unofficial Withdrawal] UW and will be calculated into the grade point average as zero grade points.

Please see http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html for more details on this and any other grading concerns.

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words.

Students who plagiarize the work of other students or provide material for another student to copy, will receive zero points and <u>will be referred to</u> the Student Judicial Affairs and Community Standards (SJACS) board for further action. If SJACS determines the student violated the ethics codes, **the student will receive an F** in the course as suggested by the University. This is non-negotiable!!

The School of Engineering adheres to the University's policies and procedures governing academic integrity as described in SCampus. Students are required to be familiar with and to observe the academic integrity standards described in SCampus, and to expect those standards to be enforced in this course. **You are required to familiarize yourself with:**

http://www.usc.edu/student-affairs/SJACS/nonacademicreview.html

Assignments, lectures, grades, discussion and all other course materials will be posted on D2L (http://courses.uscden.net/). Please check the class website regularly.

Class Schedule:

Class	Topic	Reading Assignment	Assignment
Week 1. Aug. 27 Aug. 29	Overview	Magal: Chapters 1 and 2	Assignment #1 – The ERP Environment, due Tues., Sept. 3 rd before class.
Week 2. Sept. 3 Sept. 5	 ERP Sim Logistics Game Overview, then play Round 1 Play Rounds 2 then 3 	Reference: ERPSim Participant Guide Logistics Intro Game	Live (online or on premise) Review of ERP Enviroment, due Tues., Sept. 10 th before class.
Week 3. Sept. 10 Sept. 12	Intro to Accounting • Financial Accounting • Managerial Accounting	Magal: Chapter 3	Assignment #2 – Accounting, due Tues., Sept. 17 th before class. Review of Accounting, due Tues., Sept. 17 th before class.
Week 4. Sept. 17 Sept. 19	Demand Planning, MRP • Master Data & Forecasts • MRP & The Planning Process	Magal: Ch 8	Assignment #3 — Demand Planning, due Tues., Sept. 24 th before class. Review of Planning, due Tues., Sept. 24 th before class.
Week 5. Sept. 24 Sept. 26	 The Procurement Process Organizational Elements and Master Data The Business Process and Financials 	Magal: Ch 7	Assignment #4 – Procurement, due Tues, Oct. 1 st before class. Review of Procuremnt, due Tues., Oct. 1 st before class.
Week 6. Oct. 1 Oct. 3	Production • Bill of Materials, Routing Documents & Work Centers • The Production Process	Magal: Ch 6	Assignment #5 – Production, due Monday, Oct. 7 th before 5:00 pm. Review of Production due Monday, Oct. 7 th before 5:00 pm.

Class	Topic	Reading Assignment	Assignment
Week 7. Oct. 8	Midterm Exam		Midterm Project, due Tues., Oct. 15 th before class.
Oct. 10	Materials Management • Inventory Management	Magal: Ch 7	Continue Working on Midterm Project
Week 8. Oct. 15 Oct. 17	Materials Mgmt (cont.) • Warehouse Management Fall Break - no class	Magal: Ch 7 (cont.)	Assignment #6 — Material Mgmt, due Tues., Oct. 22 nd before class. Review of Material Mgmt due Tues., Oct. 22 nd before class.
Week 9. Oct. 22 Oct. 24	The Sales Process • Sales Org. Elements • The Sales Process	Magal: Ch 5	Assignment #7 – Sales, due Tues, Oct. 29 th before class. Review of Sales due Tues., Oct. 29 th before class.
Week 10. Oct. 29 Oct. 31	 The ERP Simulation Game Overview of the ERP Sim Game Continue w/ discussion & preparation 	Reference: ERPSim Participant Guide Manufacturing Game	No assignment this week other than to bring your questions to class!
Week 11. Nov. 5 Nov. 7	ERP Sim Game – Practice • Practice Game, Round 1 • Practice Game, Round 2	Reference: ERPSim Participant Guide Manufacturing Game	Live (online or on premise participation is mandatory).
Week 12. Nov. 12 Nov. 14	Practice Game (cont.) • Practice Game, Rounds 3 & 4. • Analyze resulting data and discuss additional business strategies.	Reference: ERPSim Participant Guide Manufacturing Game	Live (online or on premise participation is mandatory). SIM Analysis 1 – Practice Sim Game Analysis, due Tuesday Nov. 19 th before class.
Week 13. Nov. 19 Nov. 21	ERP Sim Game – Extended • Extended Game, R1-R3 • Extended Game, R4-R6	Reference: ERPSim Participant Guide Manufacturing Game	Live (online or on premise participation is mandatory)

Class	Topic	Reading Assignment	Assignment
Week 14. Nov. 26 Nov. 28	Extended Game (cont.) • Extended Game, R7-R9 • Thanksgiving Holiday - no class	Reference: ERPSim Participant Guide Manufacturing Game	Live (online or on premise participation is mandatory)
Week 15. Dec. 3 Dec. 5	 Extended Game (cont.) Extended Game, R10-12 Discuss Extended Game results and winning strategies. 	Reference: ERPSim Participant Guide Manufacturing Game	SIM Analysis 2 – due Friday Dec. 6 th before 11:59 pm. Team Evals due Dec. 6 th before 11:59 pm. Game Review due Dec. 6 th before 11:59 pm.
Week 16. Dec. 12	• Final Exam – 2:00-4:00		