

## ISE583 - Enterprise Wide Information Systems

**Instructor:** Richard W. Vawter

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**Office Hours:** M/W 10:00 - 12:00 noon \*

T/Th. 11:00 - 12:30 pm

\* Office Hours on 1<sup>st</sup> Wed. of each month: 10-11:45 am.

**ISE 583**, Spring 2019

**Location:** MHP B7B

M/W 2:00-3:20 p.m.

**Class Web Page:**

<https://blackboard.usc.edu/>

**Teaching Assistant:** TBD

### **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. During the semester, lab assignments and case studies will be assigned that afford the 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)
  - Procurement
  - Production
  - Accounting
- 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

### **Simulation Game:**

- An ERP Simulation Game will be played during the semester at various times during lecture. Game can be played remotely by off-campus students.
- Student teams will be formed during the last half of the semester to play the ERP Simulation Game.
- **Participation in the game is mandatory for all students.** If you have a conflict with your other commitments on game days, please reconsider your enrollment in this course.

**Required Textbooks:**

1. Integrated Business Processes with ERP Systems, by Simha R. Magal & Jeffrey Word, Wiley & Sons, Inc., ©2011, ISBN: 978-0-470-47844-8
2. ERP Simulation Game: *Participant's Manual* (ebook) will be available for purchase online. (Cost \$50 CAD payable online by credit card. Details to be announced on the first day of class.)

**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.
- Students will receive software (SAP GUI for both Windows and MAC) to connect to the SAP ECC 6.0 server so that they can work from their personal computers.
- You will also need Microsoft Excel and Access for analyzing the data from the ERP Simulation Game

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

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.	

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%		
ERPSim Game	Practice Game Performance	5%	} 30%
	Practice Game Analysis	5%	
	Extended Game Performance	10%	
	Sim Game Final Analysis	5%	
	Peer Evaluation	5%	
Final Exam	<u>20%</u>		
	100%		

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

**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 me. 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* on-line reviewing the material just presented.
- You may take the review 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 and account for 5% of your class grade.

### 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 excuses!!
- Late Assignments must be emailed to both my TA and myself to receive partial credit.
- Assignments turned in after the deadline will automatically have 10% per day deducted.
- No late Midterm Project, however, will be accepted for credit

**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 will include material presented up to the date of the exam. The "Final" exam will cover material presented after the midterm and include questions regarding the "simulation game". The "Final" exam is not considered to be cumulative; however, knowledge and understanding of the material presented in the first half of the semester will be expected.

Midterm:	Wednesday, Feb. 20,	2:00-3:20 p.m.	in TBD
Final Exam:	Monday, May. 6,	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.**

## 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. 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 **will be referred to** 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 Blackboard (<https://blackboard.usc.edu/>). Please check the class website regularly.

**Class Schedule:**

Class	Topic	Reading Assignment	Assignment
<b>Week 1.</b> Jan. 7 Jan. 9	Overview <ul style="list-style-type: none"> <li>• Course Overview</li> <li>• Overview of ERP Systems &amp; Functionality</li> </ul>	Magal: Chapters 1 and 2	No assignment this week.
<b>Week 2.</b> Jan. 14  Jan. 16	Intro: The Case Companies <ul style="list-style-type: none"> <li>• Intro to Global Bike and the ERP SIM Game</li> </ul> Intro to Accounting <ul style="list-style-type: none"> <li>• Financial Accounting</li> </ul>	Magal: Chapters 1 and 2 (cont.) ERPSim: Ch 1 & 2 (old guide Ch 1)  Magal: Chapter 3 ERPSim: Ch 3 (old guide Ch 3)	<b>Assignment #1</b> – The ERP Environment, due Wed., Jan. 23 <sup>rd</sup> before class.  <b>Review</b> of ERP Environment, due Wed., Jan. 23 <sup>rd</sup> before class.
<b>Week 3.</b> Jan. 21 Jan. 23	Intro to Accounting (cont.) <i>University Holiday</i> no class • Managerial Accounting	Magal: Ch 3 (cont.) ERPSim: Ch 3 (cont) (old guide Ch 3)	<b>Assignment #2</b> – Accounting, due Mon., Jan. 28 <sup>th</sup> before class.  <b>Review</b> of Accounting, due Mon., Jan. 28 <sup>th</sup> before class.
<b>Week 4.</b> Jan. 28 Jan. 30	Demand Planning, MRP <ul style="list-style-type: none"> <li>• Master Data &amp; Forecasts</li> <li>• MRP &amp; The Planning Process</li> </ul>	Magal: Ch 8 ERPSim: Ch 4 (old guide Ch 2 and 4.1)	<b>Assignment #3</b> – Demand Planning, due Mon., Feb. 4 <sup>th</sup> before class.  <b>Review</b> of Planning, due Mon., Feb. 4 <sup>th</sup> before class.
<b>Week 5.</b> Feb. 4  Feb. 6	The Procurement Process <ul style="list-style-type: none"> <li>• Organizational Elements and Master Data</li> <li>• The Business Process and Financials</li> </ul>	Magal: Ch 7 ERPSim: p. 21 (old guide Ch 4.2)	<b>Assignment #4</b> – Procurement, due Mon, Feb. 11 <sup>th</sup> before class.  <b>Review</b> of Procurement, due Mon., Feb. 11 <sup>th</sup> before class.
<b>Week 6.</b> Feb. 11  Feb. 13	Production <ul style="list-style-type: none"> <li>• Bill of Materials, Routing Documents &amp; Work Centers</li> <li>• The Production Process</li> </ul>	Magal: Ch 6 ERPSim: Ch 5 (cont) (old guide Ch 4.3)	<b>Assignment #5</b> – Production, due <b>Tues.</b> , Feb. 19 <sup>th</sup> before 5:00 pm.  <b>Review</b> of Production due <b>Tuesday</b> , Feb. 19 <sup>th</sup> before 5:00 pm.

<b>Class</b>	<b>Topic</b>	<b>Reading Assignment</b>	<b>Assignment</b>
<b>Week 7.</b> Feb. 18 Feb. 20	<i>University Holiday</i> no class <b>Midterm Exam</b>	No reading assignment	<b>Midterm Project</b> , due Wed., Feb. 27 <sup>th</sup> before class.
<b>Week 8.</b> Feb. 25 Feb. 27	Materials Management <ul style="list-style-type: none"> <li>• Inventory Management</li> <li>• Warehouse Management</li> </ul>	Magal: Ch 7 ERPSim: p. 21 (old guide Ch 4.2)	<b>Assignment #6</b> – Material Mgmt, due Mon., Mar. 4 <sup>th</sup> before class. <b>Review</b> of Material Mgmt due Mon., Mar. 4 <sup>th</sup> before class.
<b>Week 9.</b> Mar. 4 Mar. 6	The Sales Process <ul style="list-style-type: none"> <li>• Organizational Elements and Master Data</li> <li>• The Sales Process and Financials</li> </ul>	Magal: Ch 5 (cont.) ERPSim: Ch 5 (cont) (old guide Ch 4.4)	<b>Assignment #7</b> – Sales, due Mon., Mar. 18 <sup>th</sup> before class. <b>Review</b> of Sales due Mon., Mar. 18 <sup>th</sup> before class.
Mar 11-15	<b><i>Spring Recess</i></b>		
<b>Week 10.</b> Mar. 18 Mar. 20	The ERP Simulation Game <ul style="list-style-type: none"> <li>• Overview of the ERP Sim Game</li> <li>• Continue discussion &amp; preparation</li> </ul>	Reference: ERPSim Manuals	No assignment this week.
<b>Week 11.</b> Mar. 25 Mar. 27	Practice Game <ul style="list-style-type: none"> <li>• Practice Game, Round 1</li> <li>• Practice Game, Round 2</li> </ul>	Reference: ERPSim Manuals	Live (online or on premise participation is mandatory).
<b>Week 12.</b> Apr. 1 Apr. 3	Practice Game (cont.) <ul style="list-style-type: none"> <li>• Practice Game, R3 &amp; 4</li> <li>• Analyze results, discuss additional business strategies</li> </ul>	Reference: ERPSim Manuals	No assignment this week. <b>SIM Analysis 1</b> – Practice Sim Game Analysis, due Mon., Apr. 8 <sup>th</sup> before class.
<b>Week 13.</b> Apr. 8 Apr. 10	ERP Extended Sim Game <ul style="list-style-type: none"> <li>• Extended Game, R1-R3</li> <li>• Extended Game, R4-R6</li> </ul>	Reference: ERPSim Manuals	Live (online or on premise participation is mandatory)
<b>Week 14.</b> Apr. 15 Apr. 17	ERP Sim Game (cont.) <ul style="list-style-type: none"> <li>• Extended Game, R7-R9</li> <li>• Extended Game, R10-12</li> </ul>	Reference: ERPSim Manuals	Live (online or on premise participation is mandatory)

Class	Topic	Reading Assignment	Assignment
<p><b>Week 15.</b> Apr. 22</p> <p>Apr. 24</p>	<p>Wrap-up</p> <ul style="list-style-type: none"> <li>• Discuss Extended Game results and winning strategies</li> <li>• Discuss course and review for final exam</li> </ul>	<p>none</p>	<p><b>SIM Analysis 2</b> – due <b>Friday</b> Apr. 26<sup>th</sup> before 11:59 pm.</p> <p><b>Team Evals</b> due Apr. 26<sup>th</sup> before 11:59 pm.</p> <p><b>Game Review</b> due Apr. 26<sup>th</sup> before 11:59 pm.</p>
<p><b>Week 16.</b> May 6</p>	<ul style="list-style-type: none"> <li>• <b>Final Exam</b></li> </ul>		