

ERP 5310 Supply Chain Management Systems in an ERP Environment
Course Syllabus – Fall 2020

Department Mission

“To serve the economic interests of industry and the evolving needs of society in a challenging, rapidly-changing, global environment, the Department of Business & Information Technology capitalizes on the strong technological emphasis of Missouri S & T to enable individuals to excel in a technology-centric business world. Recognizing this rapid evolution of the marketplace, we create and disseminate knowledge impacting the theory and practice of business.”

INSTRUCTOR AND COURSE INFORMATION

Instructors: Bih-Ru Lea, Ph.D.	Class Hours: 4 pm –6:30 pm Monday
Office: Fulton 102A	Class room: Fulton 107A
Phone: 573-341-6436	Office Hours: Monday & Wednesday: 10 am – 11 am
E-Mail: leabi@mst.edu	Tuesday: 12 noon – 1 pm
Course Credit: 3 semester hours of credit	and by appointment (suggest a time via email)
Prerequisite: ERP 2110 or (preceded or accompanied by ERP 5110)	Class Web: http://canvas.mst.edu

COURSE CATALOG DESCRIPTION:

The course studies the need for supply chain integration and the challenges of managing complex interfaces. This course focuses on the systems approach to the planning, analysis, design, development, and evaluation of the supply chain. The course discusses activities that lead to the integration of information and material flows across multiple organizations.

COURSE OBJECTIVES

As a result of taking this course, students are expected to:

Course Objectives	Program Learning Objectives					
	Communication Skills	Critical Thinking	Information Technology	Teamwork & Leadership	Global & Multicultural Issues	Integrate Business Areas
Be able to describe and explain fundamentals of Supply Chain	X	X			X	X
Be able to make reasonable decisions for supply chain design and management problems using IT enabled decision-support systems;		X	X	X		X
Be aware of Supply Chain practices	X	X	X		X	X
Understand the fundamentals of ERP systems applied to Supply Chain Management	X	X	X	X	X	X
Understand applications of data visualization, analytics, and in-memory computing on Supply Chain Management			X		X	X

TEXTBOOK(S) AND MATERIALS FOR COURSE

- Required Textbook (Students **MUST** bring their textbook when attending class):
 - Principles of Supply Chain Management by Scott Webster, 2nd Edition, 2009, Dynamic Ideas (ISBN-10: 0975914677, ISBN-13: 978-0975914670).
 - ERP5310 Course Pack (ISBN: _____), only available at the Missouri S&T Bookstore, <https://www.thesandtstore.com/>

GRADING POLICIES AND PROCEDURES:

Test 1	100 pts	Team Supply Chain Case Project	140 pts
Test 2	100 pts	• Three reports & competitions (90 pts)	
Final Exam	100 pts	• Team presentation (50 pts)	
Assignments, quizzes, class exercises, and chapter review question sets	530 pts	Discussion Board Participation	30 pts

Grading Scale:

A: ≥ 895 pts B: 795 – 894 pts C: 695 – 794 pts D: 595 – 694 pts F: < 594 pts

General Grading Policies:

1. **ALL ASSIGNMENTS AND TESTS ARE INDIVIDUAL WORKS UNLESS OTHERWISE SPECIFIED.**
2. Please make every effort to make it to class on time. It is disruptive to the class to have members arriving late.
3. The instructor will assign NO incompletes in lieu of a regular grade.

Exams, Tests, and Quizzes

1. There will be two tests and one final examination. **All exam materials may become the property of the instructor after completion.**
2. It is possible to have announced and pop quizzes throughout the semester. The student will be given the date of announced quizzes one week in advance.
3. Exam dates and quizzes are a part of the class schedule. Failure to appear for an exam/quiz will result in the assignment of a zero for that exam/quiz. If you are going to miss an exam with a legitimate reason (e.g., scheduled surgery, official University business, etc.), contact the instructor **PRIOR** to the administration of that exam/quiz. A make-up quiz/test may be allowed **during the final exam period** only if convincing reasons and proper documentation (such as a doctor's note in case of a surgery/illness) are given for the absence. The make-up exam will be a comprehensive exam covering the material from throughout the course.
4. All in-class quizzes and tests are closed books and closed notes unless otherwise specified.

Assignments

1. Assignments will mostly involve theories/concepts, mathematical computations, practical SAP ERP system operations, and other computer-intensive exercises.
2. All assignments are due at the beginning of the class on its due date. The grade will be reduced by 15% if the assignment is turned in within 24 hours later than its due time/date. The late penalty is incremented by 15% for every 24 hours late. No work will be accepted if submitted four days after the due date, including weekends. An exception will only be given to a student with a legitimate reason and he/she notifies the instructor five days before the due date.
3. If you are unable to attend a class, you need to (1) **submit your assignment file(s) via the Canvas submission link by the due date** and (2) ask a friend to submit a hard copy on your behalf at the beginning of the class on the due date.

Team Supply Chain Case Project

1. An integrated supply chain case team project will be assigned during the semester and account for 140 points of the final grade.
2. **All students**, both on-campus and distance students, are required to make proper arrangements to **participate in three 1-hour live simulation competitions listed in the course schedule**. Students can participate in person or online.
3. If a student can not participate in a live team competition event, arrangements need to be made with the instructor prior to the scheduled competition date. Failed to participate in the required live competitions could lead to a fail grade.

Class Attendance and Participation:

1. Attendance is required. You are also responsible for finding out what was covered in class and what announcements were made as well as obtaining handouts.
2. Overall, student participation and discussion are essential to ensure that the course topics are understood and are made relevant to actual business situations encountered in the workplace. As such, attendance and participation are essential factors in the learning process and a tool for assessing student learning. Therefore, you are required and expected to attend all classes.
3. Each 10% of **unexcused absences will result in the loss of a letter grade**. For example, if your grade is a B and you have missed 10% of classes without legitimate excuses, you will end up with a C.
4. The instructor reserves the right to drop a student if a student has missed more than 20% of class time.

GENERAL COURSE POLICIES:

US Federal Law Title IX

Missouri University of Science and Technology is committed to the safety and well-being of all members of its community. US Federal Law Title IX states that no member of the university community shall, on the basis of sex, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any education program or activity. Furthermore, in accordance with Title IX guidelines from the US Office of Civil Rights, Missouri S&T requires that all faculty and staff members report, to the Missouri S&T Title IX Coordinator, any notice of sexual harassment, abuse, and/or violence (including personal relational abuse, relational/domestic violence, and stalking) disclosed through communication including but not limited to direct conversation, email, social media, classroom papers, and homework exercises.

Missouri S&T's Title IX Coordinator is Mr. Neil Outar. Contact him directly (equity@mst.edu; (573) 341-7734; 203 Centennial Hall) to report Title IX violations. To learn more about Title IX resources and reporting options (confidential and non-confidential) available to Missouri S&T students, staff, and faculty, please visit <http://equity.mst.edu>.

Disability Support Services: <http://dss.mst.edu>

If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services staff send a letter to the instructor (leabi@mst.edu) verifying your disability and specifying the accommodation you will need before meeting the instructor. If you have a disability that might require academic accommodations, please visit Disability Support Services in 204 Norwood Hall (341-4211; dss@mst.edu) very early in the semester.

Student Honor Code and Academic Integrity: <http://registrar.mst.edu/academicregs>

Violations of the University's academic code include, but are not limited to, possession of or use of unauthorized materials during quizzes or tests; providing unauthorized information to another student; or copying the work of another person. Violations may result in academic penalties in addition to receiving an "F" on the assignment in question.

Page 30 of the Student Academic Regulations handbook describes the student standard of conduct relative to the University of Missouri System's Collected Rules and Regulations section 200.010, and offers descriptions of academic dishonesty including cheating, plagiarism or sabotage. Additional guidance for students, including the University's Academic Dishonesty Procedures, is available on-line at <https://registrar.mst.edu/academicreg>.

Family Educational Rights and Privacy Act (FERPA) <https://registrar.mst.edu/ferpa>

FERPA is the Family Educational Rights and Privacy Act of 1974, also known as the Buckley Amendment. Statute: 20 U.S.C. 1232g; Regulations: 34CFR Part 99. The FERPA intends to protect the rights of students and to ensure the privacy and accuracy of education records. The Act applies to all institutions that are recipients of federal aid administered by the Secretary of Education.

Lateness

Normally, the instructor will be in class on time. However, if the instructor is late by more than fifteen minutes, students should check with the Department of Business Administration located in Fulton 101 whether the class will be canceled. Students are expected to be in class on time.

Classroom Egress Maps: <https://designconstruction.mst.edu/floorplan>

Please familiarize yourself with the classroom egress maps posted online so you will know where emergency exits are located.

KEY DATES:

- The last day to add this course is Friday, September 4, 2020.
- The last day to withdraw from this course without a "WD" showing on the transcript is Monday, October 5, 2020
- The last day for dropping this course is Friday, November 13, 2020.

ERP 5310 Fall 2020 Course Schedule

Notation: TXT: Textbook CP: Course Pack

Week of	Topic	Readings & Notes
Prior to the 1 st class	1. Complete course Preparation Tasks & Technology Requirement Testing	CP: pp. 113-120
	2. Review Class Syllabus (Canvas→ Syllabus)	
	3. Pre-Class Survey (Canvas → Assignments)	
	4. Purchase the textbook and course pack and read Ch. 1 Introduction: Operations and Supply Chain before the 1 st class.	TXT: Ch. 1
1 8/24	Introduction to ERP 5310 & Course Overview	CP: pp. 1-12
	Ch. 1 Introduction: Operations and Supply Chain Management Ch. 1 review question set (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 1 CP: pp. 13-32
	SAP ERP System Navigation and Operations	CP: pp. 149-204
	Assignment: Lab 1 The Company's Supply Chain and SAP S/4HANA ERP System Navigation (CP: pp. 205-208, reference: CP: pp. 149-204)	
2 8/31	Ch. 2 Information Technology: ERP Systems, SCA Systems, and E-Commerce Ch. 2 review question set (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 2 CP: pp. 23-29
	In-class Exercise: Visualize Supply Chain	
	Introduction to Integrated Manufacturing Process in Supply Chain Context	CP: pp. 209-246
	Assignment: Lab 2: Manufacturing Order to Cash Process (Couse pack: pp. 247-251, reference: pp. 209-246)	
3 9/7	Labor Day: No class	
4 9/14	Ch. 3 Supply Chain Foundations: System Slack and Related Concept Ch. 3 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 3 CP: pp. 30-31
	Ch. 4 Demand Management: Processing, Influencing and Anticipating Demand	TXT: Ch. 4 CP: pp. 32-44
	Assignment: Lab 3: Demand Forecasting using Excel (Couse pack: p. 252)	
5 9/21	Ch. 4 Demand Management: Processing, Influencing and Anticipating Demand Ch.4 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 4 CP: pp. 32-44
	Class Exercise: Visualization Analytics in Forecasting using SAS Viya (Visual Analytics & Visual Statistics)	
	Assignment: Lab 4: Demand Forecast in Sales and Operations Planning (SOP) using SAP S/4HANA ERP System (Couse pack: pp. 253-259)	
6 9/28	Ch. 5 Supply Management: Trends, Technologies, and Tactics Ch. 5 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 5 CP: pp. 45-54
	Test 1 <ul style="list-style-type: none"> • Concept test is due 11:59 pm, Monday, September 28 • Take-Home Computer Operation test is due at 4 pm, October 5 	
7 10/5	Ch. 6 Inventory Management I: Deterministic Ch. 6 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 6 CP: pp. 55-66
	In-class Exercise: Lab 5 Forecast using Statistics and Data Mining: SAS Viya (Visual Analytics and Visual Statistics)	
	Assignments <ul style="list-style-type: none"> • Lab 6: Ch 4 & Ch. 5 Computation Problmes (CP: pp. 271) • Supply Chain Team Case: Operation and Business Plan (CP: pp. 433-450 & Team Google Doc) 	

Week of	Topic	Readings & Notes
8 10/12	Ch. 6 Inventory Management I: Deterministic Ch. 6 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 6 CP: pp. 55-66
	Inventory Management in SAP S/4HANA: MRP, Lot-Sizing, and Product Costing	CP: pp. 273-277
	Assignments <ul style="list-style-type: none"> Supply Chain Team Case Company Setup (refer to team Google Doc.) Lab 7: Inventory Management in SAP S/4HANA ERP System (CP: 273-290) 	
9 10/19	4:30 – 5:15 Review Lab 6 Computation Problems	
	5:30 – 6:10: Supply Chain Team Case Competition 1	CP: pp. 476-481
	6:10 – 6:30: Analytics: ERP Reports and Analytics	
	Assignments: Team Case Assignment 2: MRP, Lot-Sizing, and Product Costing (Team Google Doc)	
10 10/26	Ch. 9 Production Management: Flow Control and Scheduling Ch. 9 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: CP:
	Warehouse Management in SAP S/4HANA ERP System	CP:
	Assignment: Lab 8: Warehouse Management Part 1 – Procurement (using SAP S/4HANA system) (CP:)	
11 11/2	Ch. 9 Production Management: Flow Control and Scheduling Ch. 9 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: CP:
	Test 2: <ul style="list-style-type: none"> Concept test is due at 11:59 pm on 11-2 Computer operation test is due at 4 pm on 11-9 	
12 11/9	4:30 – 5:15 Warehouse management	CP: pp. 291-318
	5:15 – 5:45 Team company set up: MRP, Lot-Sizing, and Product Costing/Pricing	
	5:45 – 6:30: Supply Chain Team Case Competition 2: Lot-Sizing, and Product Costing	CP: pp. 476-481
	Assignment: Lab 9: Warehouse Management Part 2 – Procurement (CP: pp. 331-346)	
13 11/16	Ch. 8 Capacity Management: Analysis and Psychology Ch. 8 review question (Canvas→ Assignments→ Chapter Review Question Sets)	TXT: Ch. 8 CP: pp. 83-90
	Assignments: Team Case Assignment 3: Capacity Management and Automation (Team Google Doc)	
14 11/23	Thanksgiving Holiday (no class)	
15 12/30	4:00 - 5:15 Ch. 10 Transportation Management: Elements and Insights	TXT: Ch. 9 CP: pp. 91-100
	5:15 – 5:45 Team company set up: Capacity Management and Automation	
	5:45 – 6:30 Supply Chain Team Case Competition 3	CP: pp. 482-284
	Assignment: Team Case Competition Presentation (team Google Slide)	
16 12/7	Team Case Presentation	
	Ch. 12 Supply Chain Strategy: Frameworks and Synthesis	CP: pp. 101-104
	Panel Discussion: Supply Chain Challenges and Technology Trends	
	Final Exam Take Home Computer Operation is due at 4 pm on Wednesday, December 15 (Lab 10 Warehouse Management – Sales & Distribution using SAP S/4HANA system, CP: pp. 347-360)	
17 12/14	Final Exam: Concept test is due at 11:59 pm on Monday, December 10	

Note: * it is possible, due to extenuating circumstances that exact coverage and sequencing of course content, grading criteria, and weights may change. Students will be notified as far in advance of such changes.