SCM 455

Logistics Systems Analysis and Design

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Office Hours: Tuesday and Thursday: 1030 AM to 1230PM

This course outline is tentative and the instructor reserves the right to make changes.

Course Description: The objective of this course is to familiarize the student with the basic concepts and techniques of logistics management. Logistics is concerned with the efficient flow and storage of both raw materials and finished goods, and the associated managerial activities needed for effective control of materials from their initial point of origin to their final point of consumption. This course will provide a basic understanding of the concepts and techniques important to analyzing business logistics problems. The strategic importance of logistics and its relationship to other functional areas of responsibility will be emphasized.

Prerequisite(s): SCM 301 or SCM 310.

Required Text: *Contemporary Logistics*, 11th Edition
Author: Paul R. Murphy Jr., and A. Michael Knemeyer; **ISBN-13:** 978-0132953467

Suggested Text: Coyle, J., Langley, C., Novack, R., & Gibson, B. (2012). *Supply chain management: a logistics perspective*. Cengage Learning.

Course Objectives:
At the completion of this course, students will be able to:

- ✓ Develop an understanding of the principles of logistics management.
- ✓ Identify the right supply chain for a given business strategy.
- ✓ Comprehend the role of logistics in increasing profits in a firm.
- ✓ Understand dynamics within the supply chain to optimize performance and profitability.
- ✓ Learn methods to enhance performance of distribution, reverse logistics, and global supply chain communications.
- ✓ Learn how to use linear programming models to solve logistics problems including classical vehicle routing, warehousing, and transportation issues.
- ✓ Understand how trading partners may coordinate to increase logistics efficiency.
- ✓ Develop an understanding of current logistics problems and solutions through the use of case studies.
- ✓ Attain a hands-on logistics experience by working on a semester long project solving a real-world logistics problem for a company.

Grading Policy[1]:

Total Exams		**65%**
	Online Quiz ($8 \times 2.5\%$)	20%
	Pop Quiz ($5 \times 2\%$)	10%
	Exam 1 (in-class)	15%
	Final Exam (in-class)	20%
Total Case and Project		**30%**
	Cases	10%
	Final Project	20%
Class Participation		**5%**
Total		**100%**

You are responsible to check your grades on Canvas and report in the case of any discrepancy.

Letter Grade Distribution:

>= 93.00	A		70.00 - 76.99	C
90.00 - 92.99	A-		77.00 - 79.99	C+
87.00 - 89.99	B+		60.00 - 69.99	D
83.00 - 86.99	B		<= 59.99	F
80.00 - 82.99	B-			

Your final grade will not be rounded up and there will be no exceptions to this policy. For example, if your final grade is 92.8%, you will have earned an "A-".

The instructor reserves the right to modify the total course point by adding or eliminating assignments based on the class progress.

Late submission policy: Submissions after the due date will not be accepted. Please do not wait until the last minute to start / submit cases/projects.

Classroom Policies:

i) Always bring your textbook and a Calculator to the class,
ii) All students must reach the class on time,
iii) Any student disrupting the class may be asked to leave the room immediately,
iv) All students are expected to stay in the classroom for the duration of the lecture

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[1]All activities except Quizzes and Class participation are group based. Students will be asked to rate their peers to measure individual efforts towards all the group work.

Course Organization: This course is built on class discussions, case studies, and problem solving mostly in a group setting to ensure that you inculcate a culture of working in groups. In addition to understanding what is discussed in the class and the cases, you need to read the textbook before the class. Doing so will help reinforce the concepts and build your knowledge of the material. Various aspects of this course have been designed to help you with the learning process. I give below a set of guidelines, which should help you get the maximum benefit out of this course. Of course, the learning process is highly individualistic and hence you may explore and find out what works the best for you.

i) **Textbook:** The textbook is meant to supplement the class sessions. You are required to read the textbook chapters ahead of the class. This will familiarize you with what we discuss in the class and put you in a better position to participate in class discussions.

ii) **Homework Quiz:** There will be online homework posted on CANVAS which will be due one week from the date they are posted. The online homework will intentionally be harder and based on the concepts from the lectures.

iii) **Class Discussion Cases:** There will be 5-10 cases discussed in the class and each assigned to a group. Everyone is required to prepare the cases for in-class discussion. I encourage you to collectively work on these problems.

iv) **Exams:** There are two exams in this course. Both the exams are closed-notes, closed-book and to be worked out in groups. If you have a strong reason for missing an exam, you need to get in touch with me before the exam (through phone or e-mail). There will be absolutely no make-up exams. Under compelling reasons you may take an exam early.

v) **Guest Lectures:** I will invite industry professionals working in Logistics to the class to share their knowledge of careers in logistics, current issues and opportunities. Announcements for these guest lectures will be made online and in-class in advance, and you are required to attend these sessions as they supplement the lectures.

vi) **Lecture Material:** I post my lecture notes and all other course related materials on Canvas. You should download them and bring a printout to the class. The lecture notes are not self-explanatory. They are more useful if you attend the lectures. Important information and announcements will be made in class and posted on Canvas.

vii) **Class Attendance and Participation:** Students should attend every lecture. There is an incentive and reward for fully preparing for the class, attending, and participating in the class. Participation includes not just attendance but more importantly reading the book and preparing for the cases before coming to the class, doing your homework, and actively and constructively participating in class discussions. During discussions quality matters more than quantity. I encourage you to be an active learner.

viii) **Missed classes:** Do not miss any class. It is student's responsibility to make-up for the missed classes. This includes the course material covered and any specific announcements regarding the exams, quizzes, and the grading.

ix) **Calculator:** Always bring a calculator to the class. Cell phone is not allowed as a replacement for a calculator.

Academic Integrity: Penn State Behrend puts a very high value on academic integrity, and violations are not tolerated. Academic integrity is one of Penn State's four principles to which all students must abide. This principle states:

> I will practice academic integrity. Academic integrity is a basic guiding principle for all academic activity at Penn State University, allowing the pursuit of scholarly activity in an open, honest, and responsible manner. In accordance with the University's Code of Conduct, I will practice integrity in regard to all academic assignments. I will not engage in or tolerate acts of falsification, misrepresentation, or deception because such acts of dishonesty violate the fundamental ethical principles of the University community and compromise the worth of work completed by others.

Any violation of academic integrity will receive academic and possibly disciplinary sanctions, including the possible awarding of an XF grade which is recorded on the transcript and states that failure of the course was due to an act of academic dishonesty. All acts of academic dishonesty are recorded so repeat offenders can be sanctioned accordingly.

More information on academic integrity can be found at: Academic Integrity Website.

Academic and Career Planning Center (ACPC): can assist students with the process of career and life planning through a full range of programs and services. You may schedule appointments with ACPC staff to discuss issues including interests, skills, values, and goal setting as well as how to find career information, internships, full-time jobs, and graduate schools. You are encouraged to utilize the services of the ACPC every year from first semester to graduation.
ACPC Location: Reed Union Building, Room 125 (Second Floor)
ACPC Phone ☎: 814-898-6164
ACPC Web Site: `https://psbehrend.psu.edu/Academics/academic-services/acpc`

Writing tutoring is available in the Learning Resource Center:, 203 John M. Lilley Library, 4951 College Drive, Erie, PA 16563.

For more information please go to: Penn State Behrend Learning Resource Center.

Note to students with disabilities: Penn State is strongly committed to providing full access to its programs and services for all individuals. The University encourages academically qualified students with disabilities to take advantage of the educational programs offered at Penn State Behrend. The Office of Educational Equity and Diversity Programs, located in the Student Affairs Suite, on the second floor of the Reed Union Building, provides assistance and support for students. A disability services coordinator provides services tailored to meet the specific needs of each student.

For more information please go to: Penn State Behrend Disability Services.