

Logistics Management

Course Syllabus ISOM 3760 (**Undergraduate Level**)

Fall 2016

(Subject to change)

Instructor:

Ying-Ju Chen

Office: LSK 4035

Email: imchen@ust.hk

Website: <http://ihome.ust.hk/~imchen>

Office Hour: By appointment

TA:

Jing Jia

Office: Rm 4065

Tel : 2358-8543

Office Hour : Monday 12:30-13:30 pm

Email : imjing@ust.hk

Required text & Recommended book:

N/A

Course-related Technology:

Canvas (Course website)

iPRS (Mobile-based Clicker)

IPeer (Peer evaluation)

Assessment Methods:

Class Participation	6%
Homework	4%
In-class exercises (group)	15%
Quiz (Midterm)	25%
Final	25%
<u>Project (group)</u>	<u>25%</u>
Total	100%

Late submissions are not accepted

Blended learning & Flipped classroom approach:

This is a blended-learning course for which we will adopt the flipped-classroom approach. Its major purposes are to facilitate interactions between the instructor//TA and students, peer learning among students, and small-class teaching. We have recorded videos for the lecture materials and they will be uploaded before the class meeting time. Students must watch the videos before attending the class meetings.

During the class meeting time, students may ask questions and the instructor will address them, with the possibility of going over part of the materials if necessary. We will design conceptual questions to facilitate discussions based on the materials. In addition, we will exercise problem solving in class on a group basis.

Class Participation:

Class participation is critical for this course. You will be assessed by your contribution to in-class discussion as an individual. Both quality and frequency of participation will be taken into account, with more emphasis on quality. Your team will also be evaluated based on how well you collaborated in class work and games, and how well your team members help out each other in class. All mobile phones and ringing devices should be turned off or silent in class.

Homework

For each session, you are required to watch the videos, and submit one question that is relevant to the lecture materials before attending the class meetings. We may give extra points for questions that facilitate vivid class discussions.

In-class exercises

They take place multiple times and each group works together and the grading is done on a group basis. However, each student must submit an individual report/answer sheet. Students will be called upon to show and explain their answers to the entire class. Those with excellent performance can earn extra points for their groups. Students in a group will be required to sit together in the classroom.

Quizzes & Final Exam

There will be 1 quiz and a final exam (**CLOSED BOOK, CLOSED NOTES**). One-page, double-sided cheat sheets are allowed for the quiz and the final. Students with an approved medical certificate may take an ORAL make-up exam and earn up to 75% of the quiz. No make-up exam for the final will be administered for any reason. The time commitment for participating in the exams is essential. You can use calculators during the exams, but programmed calculations are considered cheating. Suspected violations of the Code of Student Conduct will be reported to the Office of Student Conduct (or the equivalent authority).

The final exam is cumulative/ comprehensive.

Project:

The project will be an opportunity for you to learn more about logistics management or to put into practice what you have learned in class. Projects should study a specific logistics management practice in a real organization. You are free to choose a topic and an organization of your interest. Your job is to identify and exploit opportunities for logistics improvement in your chosen example.

As broad guidelines for these projects, put yourself in the shoe of a team of analysts trying to analyze some particular issues of an organization that is related to the content of this course. Your study should hopefully culminate with an assessment of the strengths and weaknesses of the associated logistics management practice and some suggestions for improvements. This could roughly follow the following outline:

- a. Understand and describe application setting: industry overview, customer characteristics, operations issues, etc.
- b. Describe the current logistics management practice.
- c. Assess the strengths and weaknesses of the current practice, possibly with an assessment of the magnitude of benefits (harms) brought by the strengths (weaknesses).
- d. Propose some improvement opportunities, with an assessment of the difficulty to implement such improvements

You do NOT need to collect the data and solve the model. However, you are expected to explain how you will go about getting the needed data, how the model will be solved and what strategies you expect to use. You should also explain how the improvement will be implemented and preferably provide an estimate on the expected magnitude of improvement (justified based on initial data). Basically, you can consider this as a proposal to a company from either a consulting firm or an internal consulting department.

Project (continued):

For this semester, the central theme is logistics management for **non-governmental organizations (NGO) or social enterprises** either in developed or developing countries. If your project exhibits no such feature, the score will be appropriately downgraded to reflect the lack of focus.

Some relevant materials:

Non-governmental organizations (NGO) in Hong Kong

http://www.had.gov.hk/en/public_services/services_for_new_arrivals_from_the_main_land/role.htm

Social enterprises in Hong Kong

<http://www.social-enterprises.gov.hk/en/home/index.html>

- very good video series organized by J-PAL (MIT) & IPA (Yale) & CEGA (UC Berkeley):

J-PAL: https://www.youtube.com/channel/UCk-2mgjXoFuZwkdHAsYDJ_Q (Links to an external site.)

IPA: <https://www.youtube.com/channel/UCRAqMLso6wKvLrKWSVSCDRQ> (Links to an external site.)

CEGA: <https://www.youtube.com/channel/UCaQ0bR9S2jnQEI5HBN-72w>

- Excellent courses in the relevant area:

MITx: 14.73x The Challenges of Global Poverty

https://courses.edx.org/courses/MITx/14.73x_1/1T2015/info

MITx - 14.74x Foundations of Development Policy

also on <https://courses.edx.org>

[Columbia University](#) (Links to an external site.) [The Age of Sustainable Development](#) (Links to an external site.)

<https://www.coursera.org/learn/sustainable-development> (Links to an external site.)

- Online Resources of OR in Developing Countries

http://ifors.org/developing_countries/index.php?title=Main_Page (Links to an external site.)

Project (continued):

There are two parts for the project. A one-page proposal is due on 9/27.

For the first part, during 10/4 – 10/11, each group will make a presentation with the **presentation slides**. The presentation slides are prepared for a **10-minute** (targeted) presentation. It should describe the institutional details of the organization you intend to study, and it should focus on the **production** side issues and your proposed solutions. Soft copies of these materials should be uploaded to the course website before 12:01am midnight of the proposal due date. Failure to meet the deadline results in 1 point reduction of your final score. No excuse is accepted. Thus, make sure you as a team have access to the course website and get your files ready by then.

For the second part, during 11/17 – 11/24, each group will make a presentation with the **presentation slides**. The presentation slides are prepared for a **10-minute** (targeted) presentation. It should remind the audience some broad overview of the organization you intend to study, and it should focus on the **distribution** side (including **pricing** if necessary) issues and your proposed solutions. Soft copies of these materials should be uploaded to the course website before 12:01am midnight of the proposal due date. Failure to meet the deadline results in 1 point reduction of your final score. No excuse is accepted.

The evaluation will be done by the entire class as well as the instructor. 30% of your project scores come from peer evaluation, and the remaining 70% comes from the instructor's judgement. No detailed written report is needed. Also, we will not make the presentation slides available to the entire class to ensure fairness. Note: You are not allowed to use previous projects from other courses to fulfill the requirement.

	10/	7 /	4 /	1 /
Problem identification	Well defined and explained; a large amount of original thought; problem with	Well defined and explained; some original thought; problem with	Interesting problem identified, but there is little evidence of original thinking, or	It is not clear what the real problem is
Model and Data	Appropriate and rigorous model but yet not overly complicated; Excellent plan for data collection	Appropriate and rigorous model, but some fine-tuning is required; Some good ideas of how data can be collected	Appropriate model, but major adjustment is required; Little idea of how data can be collected	Inappropriate model, and/or major errors in the model; No idea on how data can be collected
Implementation Planning	Concrete and comprehensive plans; show considerations for all key issues; specific on how to measure the benefit	Good and realistic plan for data collection and improvement implementation	There are some good points in the plan, but the plan is either too vague or some ideas are unrealistic	No or little clue about what data is needed and how the improvement should be implemented; Or plans are unrealistic and illogical
Delivery	Excellent use of visuals; very clear and concise flow of ideas; demonstrate and stimulate passion	Good use of visuals; clear flow of ideas; demonstrate interest	Limited and/or not so good use of visuals; ideas presented but focus is lost at times; limited evidence of interest	No use of visuals; hard to follow ideas; lack of enthusiasm and interest
Response to questions/comments	Excellent response; demonstrate in-depth consideration of all issues	Good response; demonstrate in-depth considerations of most issues	Satisfactory response; demonstrate considerations of some of the issues	Limited response; demonstrate a lack of considerations of significant issues

Team Members Peer Evaluation

You will assess all team members for the group assignments using the following rubric. For each category, evaluate each team member and give a grade. All responses are confidential. You must submit it via IPeer by the deadlines. Failure to do so for each group assignment will reduce your own total score by 1 point. The instructor and the TA retain the right to adjust individual grade of the homework assignments and the final project based on these peer evaluations.

	4	3	2	1
Attendance	Attend almost all meetings and all classes; inform and/or seek agreement of the team before absence	Attend most of the meetings and classes; inform and/or seek agreement of the team before absence	Attend at least half of the meetings and classes; inform and/or seek agreement of team before most absences	Frequently miss meetings or classes; Or fail to inform the team before absence
Contribution	Contributes a lot of effort; routinely provides useful ideas in team meetings and class discussions	Tries hard to contribute; usually provides useful ideas in team meetings and class discussions	Does what is required; sometimes provides useful ideas in team meetings and class discussions	May refuse to participate; rarely provides useful ideas in team meetings and class discussions
Quality of work	Provides work of highest quality that impresses other team members	Provides work of high quality that meets expectations of other team members	Provides work that occasionally needs to be redone by other team members to ensure quality	Provides work that usually needs to be redone by other team members to ensure quality
Working with others	Always listens and show support to other team members; always help to keep the team work well together	Usually listens to and show supports to others; may talk too much, but does not	Rarely listens, but still shows support to other team members; sometimes not a good team member	Never show support to other team members; often not a good team member
Time management	Always does the assigned work without having to be reminded; no need to adjust deadlines or work responsibilities because of him/her	Usually does the assigned work; rarely needs reminding; no need to adjust deadlines or work	Often needs reminding; occasionally adjust deadlines or work responsibilities	Rarely get things done by deadlines; always have to adjust deadlines or work responsibilities

Course Objectives / Learning Goals:

This course aims to provide you with a fundamental overview of the logistics function in business. You will develop a conceptual understanding of the various issues, problems and realities arising in different aspects of logistics. Emphasis will be put on critical analysis of real logistics problems encountered in business, as well as communication skills that will help you share your thoughts and analysis effectively with peers, colleagues and clients.

Course Learning Outcomes

The course learning goals comply with the educational objectives of the BBA-OM program. Upon completion of the course, you will be able to:

- Illustrate the basic logistics management concepts and the role of logistics management in firms (PILO 1, 3, 4)

- Explain the key logistics processes and operations and their inter-relationships (PILO 2)

- Examine various problems faced by logistics managers on functional, business and company- wide basis (PILO 1, 3, 4, 8)

- Evaluate critically the applicability of various logistics strategies on different situations

- Communicate your ideas effectively through discussions, presentations and written documents (PILO 2, 5)

Tentative schedule:

This outline may be modified from time to time, depending on timing and interests.

Session	Date	Topics	In-class activities: Participants	Assignment/ Important dates
1	9/1 Thr	Introduction	Syllabus discussions: Entire class	
2	9/6 Tue	Time horizon	No in-class meeting	
3	9/8 Thr	Cost analysis and Risk	No in-class meeting	
4	9/13 Tue	Developing Economies	Discussions: Entire class	Add/Drop period till 9/14
5	9/15 Thr	EOQ graphical analysis + pricing & others	Problem solving: Groups 1-6	
6	9/20 Tue	EOQ (cont'd)	Problem solving: Groups 7-12	
7	9/22 Thr	Newsvendor + channel & competition	Problem solving: Groups 1-6	
8	9/27 Tue	Newsvendor (cont'd)	Problem solving: Groups 7-12	Project proposal due
9	9/29 Thr	Inventory Planning	Problem solving: Groups 1-6	
10	10/4 Tue	Customer satisfaction & service	Problem solving: Groups 7-12	
11	10/6 Thr	Project –Production	Project presentations: Entire class	
12	10/11 Tue	Project –Production	Project presentations: Entire class	
13	10/13 Thr	Project –Production	Project presentations: Entire class	Peer evaluation due
14	10/18 Tue	Review session 1	Open discussions: Entire class	
15	10/20 Thr	Midterm	Exam in Evening	
16	10/25 Tue	Container/Vehicle consolidation	No in-class meeting	
17	10/27 Thr	TSP & VRP heuristics	Problem solving: Groups 1-6	
18	11/1 Tue	TSP & VRP (cont'd)	Problem solving: Groups 7-12	
19	11/3 Thr	Cross docking	No in-class meeting	
20	11/8 Tue	Facility location	Customer valuation game: Groups 1-6	
21	11/10 Thr	Dynamic pricing	Customer valuation game: Groups 7-12	
22	11/15 Tue	Dynamic pricing/ limitation	Discussions: Entire class	
23	11/17 Thr	Project – Distribution/Pricing	Project presentations: Entire class	
24	11/22 Tue	Project– Distribution/Pricing	Project presentations: Entire class	
25	11/24 Thr	Project– Distribution/Pricing	Project presentations: Entire class	
26	11/29 Tue	Review session 2	Open discussions: Entire class	Peer evaluation due
