Unit Outline*

INMT8503/INMT8703

Logistics and Supply Chain Management

Semester 2 2011
Crawley

Associate Professor Min Qiu

Business School
www.business.uwa.edu.au

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UNIT DESCRIPTION

Introduction

Welcome to the study of Logistics and Supply Chain Management. The unit and the instructional material have been developed to cover a wide range of issues in logistics and supply chain management, which lays a foundation to study specific topics or techniques of logistics and supply chain in depth.

The objective of the unit is to enable students to achieve an understanding of the terms, concepts, and principles of logistics and supply chain management; the issues faced by logistics managers and new approaches to these issues; and the transport and other physical processes in logistics operations.

The lecturer is Dr Min Qiu, a transport specialist with 26 years of experience in transport, logistics and supply chain management, gained through teaching, research and consultancy in China and Australia. He is also a logistics practitioner in the bulk commodity business. Min achieved his Bachelor Degree in Road and Traffic Engineering at Tongji University in Shanghai, did his PhD at The University of Western Australia in Transport Economics, and completed his Graduate Business Qualification at Curtin University of Technology in Australia. Min is currently Associate Professor in Business School at The University of Western Australia. Prior to his current employment, he was Research and Development Officer for Transport Modelling and then Road Performance Evaluation Manager at Main Roads Western Australia, Senior Transport Engineer at PPK Environment & Infrastructure Pty Ltd in Australia, Senior Transport Planning Engineer at GHD Pty Ltd in Australia, and Lecturer at Tongji University in China.

Unit content

This unit covers basic concepts of logistics and supply chain, strategic fit of supply chain, broad issues in distribution network and inventory management, sourcing decisions, transport, warehousing, outsourcing, materials handling, and pricing and revenue management.

The Goal of the unit

This unit is pitched at students in a master program who desire to have an overall understanding of the components of a supply chain, and lays a foundation for students to further study advanced issues of supply chain management. The unit also contributes to students’ knowledge of applying quantitative methods to solving management problems in the field.
**Learning outcomes**

On completion of this unit, you should be able to:

- Take a strategic view on specific business processes/tasks in a supply chain, which makes a contribution to achieving the objectives of the organisation
- Develop supply chain processes that are consistent with the supply chain strategy and in turn with the competitive strategy of the organisation
- Develop and plan relevant distribution networks for various supply chain situations
- Formulate relevant inventory policies and measures to minimise safety inventory
- Have in-depth knowledge to make decisions in relation to transport in supply chains
- Make relevant warehousing decisions, such as warehousing types, and public versus private warehousing
- Choose appropriate materials handling equipment using principles relevant to various warehousing and production situations
- Have relevant knowledge of packaging
- Have relevant knowledge of sourcing decisions
- Develop pricing and revenue management measures to maximise the profit of various assets of the organisation

**Educational Principles and Graduate Attributes**

In this unit, students will be encouraged and facilitated to develop the ability and desire to:

- Develop competencies to work more effectively in teams through the preparation of a group in-class presentation of a critique of an academic paper on logistics and supply chain management
- Develop more effective communication skills through a class presentation on the critique paper by responding to any questions that arise following that presentation
- Demonstrate self-management and independent learning skills through the completion of the prescribed individual assignments

**TEACHING AND LEARNING RESPONSIBILITIES**

**Teaching and learning strategies**

At the University of Western Australia, student learning encompasses experiences both within and beyond the formal setting of classrooms and lecture theatres. The lectures will be held in BUSN: 201 (3.0 hours, 5:00 – 8:00 pm) on Tuesdays. Preparation involves reading the lecture notes and textbook chapters, and preparing the chapter questions set for that week.

**Teaching and learning evaluation**

You may be asked to complete two evaluations during this unit. The Student Perception of Teaching (SPOT) and the Students’ Unit Reflective Feedback (SURF). The SPOT is optional and is an evaluation of the lecturer and the unit. The SURF is completed online and is a university wide survey and deals only with the unit. You will receive an email from the SURF office inviting you to complete the SURF when it is activated. We encourage you to complete the forms as your feedback is extremely important and can be used to make changes to the unit or lecturing style when appropriate.
**Attendance**

Participation in class, whether it be listening to a lecture or getting involved in other activities, is an important part of the learning process, therefore it is important that you attend classes. More formally, the University regulations state that ‘to complete a course or unit students shall attend prescribed classes, lectures, seminars and tutorials’. Where a student, due to exceptional circumstances, is unable to attend a scheduled class, they are required to obtain prior approval of the unit coordinator to be absent from that class. Any student absent from class without having had such absence approved by the unit coordinator may be referred to the faculty for advice and may be required to withdraw from the unit.

**CONTACT DETAILS**

We strongly advise students to regularly access their student email accounts. Important information regarding the unit is often communicated by email and will not be automatically forwarded to private email addresses.

<table>
<thead>
<tr>
<th>Unit coordinator/lecturer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
<td>Min Qiu</td>
</tr>
<tr>
<td><strong>Email:</strong></td>
<td><a href="mailto:min.qiu@uwa.edu.au">min.qiu@uwa.edu.au</a></td>
</tr>
<tr>
<td><strong>Phone:</strong></td>
<td>6488 3729</td>
</tr>
<tr>
<td><strong>Consultation hours:</strong></td>
<td>Tuesday 1:00 pm – 3:00 pm</td>
</tr>
<tr>
<td><strong>Lecture times:</strong></td>
<td>Tuesday 5:00 pm – 8:00 pm</td>
</tr>
<tr>
<td><strong>Lecture venue:</strong></td>
<td>BUSN 201</td>
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</table>

**TEXTBOOK(S) & RESOURCES**

**Recommended/required text(s)**


**Software requirements**

The following softwares will be used to demonstrate

- Solver on Microsoft Excel – linear programming
- Evolver on Microsoft Excel – genetic algorithm
- Extend – discrete event simulation

**Additional resources & reading material**

**Journals**

- International Journal of Production Economics
- Transportation Research Part E : Logistics and Transportation Review
- Omega
- Technovation

All of these journals are accessible through the UWA Library: http://www.library.uwa.edu.au/ → SuperSearch (you will be required to login with the...
The authors of journal articles often try to impress referees with a lot of mathematics. Much of that can be ignored when you are seeking the substance of an article.

**Websites**

- The Worldwide Directory of Transportation and Logistics  
- Leaders in Internet Protocol (IP) Based Transport Management Systems  
- UPS Logistics Technologies  

**UNIT SCHEDULE**

<table>
<thead>
<tr>
<th>Week #</th>
<th>Date</th>
<th>Text to read</th>
<th>Lecture topic</th>
<th>In-class presentation*</th>
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<tbody>
<tr>
<td>1</td>
<td>Aug 02</td>
<td>19-36</td>
<td>Understanding the supply chain</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Aug 09</td>
<td>37-58</td>
<td>Supply chain performance</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Aug 16</td>
<td>59-84</td>
<td>Supply chain drivers and obstacles</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Aug 23</td>
<td>85-124</td>
<td>Distribution networks and application to e-business</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Linear programming on Excel</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Aug 30</td>
<td>125-158</td>
<td>Network design in the supply chain</td>
<td>Group 1</td>
</tr>
<tr>
<td>6</td>
<td>Sept 06</td>
<td>264-304</td>
<td>Inventory management in the supply chain</td>
<td>Group 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Inventory simulation</td>
<td></td>
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<tr>
<td>7</td>
<td>Sept 13</td>
<td>264-304</td>
<td>Inventory management in the supply chain (cont.)</td>
<td>Group 3</td>
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<tr>
<td>8</td>
<td>Sept 20</td>
<td>305-344</td>
<td>Inventory management in the supply chain (cont.)</td>
<td>Group 4</td>
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<tr>
<td>9</td>
<td>Oct 04</td>
<td>n.a.</td>
<td>Warehousing</td>
<td>Group 5</td>
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<tr>
<td>10</td>
<td>Oct 11</td>
<td>n.a.</td>
<td>Material handling, packing and order picking</td>
<td>Group 6</td>
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<tr>
<td>11</td>
<td>Oct 18</td>
<td>380-407</td>
<td>Transport in the supply chain</td>
<td>Group 7</td>
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<tr>
<td>12</td>
<td>Oct 25</td>
<td>410-447</td>
<td>Sourcing decisions in a supply chain</td>
<td>Group 8</td>
</tr>
<tr>
<td>13</td>
<td>Nov 01</td>
<td>448-469</td>
<td>Pricing and revenue management in the supply chain</td>
<td>Revision</td>
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</table>

* The actual presentation schedule will be finalised after the exact number of enrolments for the units becomes known.
ASSESSMENT MECHANISM

The purpose of assessment

There are a number of reasons for having assessable tasks as part of an academic program. The assessable tasks are designed to encourage you to explore and understand the subject more fully. The fact that we grade your work provides you an indication of how much you have achieved. Providing feedback on your work also serves as part of the learning process.

Assessment mechanism summary

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
<th>Due date</th>
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</thead>
<tbody>
<tr>
<td>Assignment case study 1 (individual assignment)</td>
<td>20%</td>
<td>September 09, 2011</td>
</tr>
<tr>
<td>Assignment case study 2 (individual assignment)</td>
<td>20%</td>
<td>October 21, 2011</td>
</tr>
<tr>
<td>In-class presentation of journal article review (group assignment)</td>
<td>12%</td>
<td>As per Unit Schedule</td>
</tr>
<tr>
<td>Written report of the group presentation (group assignment)</td>
<td>12%</td>
<td>By November 04, 2011 (WebCT)</td>
</tr>
<tr>
<td>Final exam</td>
<td>36%</td>
<td>To be advised</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>Weight</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment case study 1 (individual assignment)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Assignment case study 2 (individual assignment)</td>
<td>25%</td>
<td>October 21, 2011</td>
</tr>
<tr>
<td>In-class presentation of journal article review (group assignment)</td>
<td>15%</td>
<td>As per Unit Schedule</td>
</tr>
<tr>
<td>Written report of the group presentation (group assignment)</td>
<td>15%</td>
<td>By November 04, 2011 (WebCT)</td>
</tr>
<tr>
<td>Final exam</td>
<td>45%</td>
<td>To be advised</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
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</tr>
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</table>

Note 1: Results may be subject to scaling and standardisation under faculty policy and are not necessarily the sum of the component parts.

Note 2: Your assessed work may also be used for quality assurance purposes, such as to assess the level of achievement of learning outcomes as required for accreditation and audit purposes. The findings may be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential, and the outcome will not affect your grade for the unit.
Assessment components

Assignment case study 1 – IKEA Invades America

• A case study paper, questions, report requirements and the allocation of assessment marks are to be distributed on Tuesday 09 August 2011.
• Details of the assignment, including marking criteria are provided in the corresponding assignment information sheet.
• A digital copy of completed report is due on Friday 09 September 2011. The digital copy needs to be in Microsoft Words (*.doc) format and is submit through the folder in Turnitin® package for the unit (INMT8703 and INMT8503) and WebCT. Individual reports will be subject to a check against academic misconduct, such as plagiarism, through the Turnitin® package, and any report with a cumulative Similarity Index 15% or above will be rejected.

Assignment case study 2 – Amazon.com’s Inventory Management

• A case study paper, questions, report requirements and the allocation of assessment marks are to be distributed on Tuesday 06 September 2011.
• Details of the assignment, including marking criteria are provided in the corresponding assignment information sheet.
• Completed report is due on Friday 21 October 2011. The digital copy needs to be in Microsoft Words (*.doc) format and is submit through the folder in Turnitin® package for the unit (INMT8703 and INMT8503) and WebCT. Individual reports will be subject to a check against academic misconduct, such as plagiarism, through the Turnitin® package, and any report with a cumulative Similarity Index 15% or above will be rejected.

In-class group presentation

• Present a critical review of one journal article that relates to an aspect of logistics and supply chain management.
  ▪ Many articles are available on line.
  ▪ If an article in a fairly mathematical journal is selected then the task is to make sense of it in terms of practical application.
  ▪ If an article in a more applied journal is selected then it will be necessary to give a rigorous assessment of it.
  ▪ Articles in trade journals or magazines may not be sufficiently rigorous but one may be selected if it deals thoroughly with a very important issue in the course.
• The student is expected to obtain the lecturer’s approval of the article at least one week before the presentation and to provide a copy for distribution to all students.
• All students are expected to read the article before the class and to be able to ask questions.
• The presentation should be viewed as a communication exercise to be carried out in a professional manner, assuming an audience of other professionals who are not familiar with the speaker’s subject area.
• A presentation should take about 20 minutes (i.e., 15 minutes for the presentation and 5 minutes for questions) and be done with Microsoft PowerPoint. Questions will be asked by other students.
• Consider the checklist below when preparing your presentation. You should:
  ▪ Prepare a brief ‘point form’ summary of the author(s) objective(s), major finding(s) and conclusion(s);
  ▪ Consider Items #5 and #13 in the checklist, select three additional items (covering all headings) and state which of these you are addressing during the presentation;
  ▪ Prepare a list of 2-3 questions or comments, which address the significance of the research (e.g. criticisms, areas of uncertainty or ideas for future research).
• Non-presenters are also expected to prepare themselves for the presentations by their colleagues.

• Checklist for making a critique of a research article

Introduction
1. Read the statement of purpose at the end of the introduction. What was the objective of the study?
2. Consider the title. Does it precisely state the subject of the paper?
3. Read the statement of purpose in the abstract. Does it match that in the introduction?
4. Check the sequence of statements in the introduction. Is all information related directly to the purpose of the study?

Methods
5. Review all methods in relation to the objective of the study. Are the methods valid for studying the problem?
6. Check the methods for essential information. Could the study be replicated from the information given?
7. Review the methods for possible flaws. Is any sample selection adequate? Is the experimental design appropriate?
8. Check the sequence of statements in the methods. Can the methods be made clearer?

Results
9. Scrutinise the data, as presented in tables and illustrations. Does the title or legend accurately describe the content? Are column headings and labels accurate? Are the data organised for ready comparison and interpretation?
10. Review the results as presented in the text while referring to data in the tables and illustrations. Does the text complement, and not simply repeat, data? Are there discrepancies in results between text and tables?
11. Check calculations, if possible, and the presentation of data.
12. Review the results in the light of the stated objective. Does the study reveal what the researcher intended?

Discussion
13. Check the interpretation against the results. Does the discussion merely repeat the results? Does the interpretation arise logically from the data, or is it too far-fetched? Have shortcomings of the research been addressed?
14. Compare the interpretation to related studies cited in the article. Is the interpretation at odds or in line with other researchers' thinking?
15. Consider the published research on this topic. Have all key studies been considered?
16. Reflect on directions for future research. Has the author suggested further work, research directions?

Written report of the in-class group presentation
• In general, the written report is an expansion of the presentation slides into an essay and needs to cover all points that have addressed in the presentation. Simple repetition of wording in presentation slides without elaborations will lead to the assignment being rejected.
• A digital copy of the report needs to be in Microsoft Words (*.doc) format and is submit through WebCT for the unit (INMT8703 and INMT8503) by Friday 04 November 2011.
• The report needs to have a length of minimum 1000 words.
Submission of assignments

Assignments are to be submitted via the assignment drop box in the unit’s WebCT site and Turnitin® package.

Please remember to attach an Assignment Cover Sheet to the front of your assignment. You can download and print your Assignment Cover Sheet from the Current Students web page http://www.business.uwa.edu.au/students/assessments

Student Guild

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Website: http://www.guild.uwa.edu.au

Charter of Student Rights and Responsibilities


Appeals against academic assessment

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