1. COURSE DESCRIPTION

This course will provide the student with a clear understanding of the role of management science in business decision making. The course will cover the main areas of modelling and then use these models in business applications.

2. JUSTIFICATION

Logistics becomes important by providing competitive advantage through competence in delivery speed, reliability, responsiveness, and low cost distribution. Integrating logistics into corporate strategy has a greater effect on customer value than any other process and integrating logistics into overall organizational strategy is critical to reducing costs, entering new markets, creating customer service, and gaining competitive advantage.

3. OBJECTIVES

a. GENERAL

Provide the students all the necessary tools to manage the operations and logistics of a business, and be able to trace a scientific strategy that will lead to the success of a business.

b. SPECIFIC

- Understand what a logistic system is and how to manage properly
- Use mathematical model to solve business problems related to the supply chain of a business
- Use a mathematical model to solve transportation problems related to minimization of cost
- Learn how to organize a waiting line system
- Learn how to manage the inventory of a firm in a way that optimizes cost.
4. COMPETENCIES

- Combine theory and practice of Supply Chains.
- Use relevant concepts to analyze and assess complex Logistics Operations.
- Analyze online business strategies with the tactical implementation.
- Gain an understanding of the different areas of the company that are affected by Logistics Decisions.

5. COURSE CONTENT OUTLINE

<table>
<thead>
<tr>
<th>DATES &amp; SESSIONS</th>
<th>SPECIFIC COMPETENCIES</th>
<th>CONTENTS</th>
<th>NON CONTACT HOURS</th>
<th>PAGES</th>
<th>Homework/Project Assignments</th>
<th>ASSESSMENT (performance indicators)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-07-05</td>
<td>Session 1</td>
<td>Describe the cycle and push/pull views of a Supply Chain</td>
<td>What is a Supply Chain? Decision Phases in a SC Process View &amp; Importance of SC Flows</td>
<td>Examples of Supply Chains</td>
<td>3-26 Gateway, 7-11 &amp; W.W. Granger</td>
<td>Appreciate Logistics Environment</td>
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<tr>
<td>2010-07-06</td>
<td>Session 2</td>
<td>Explain why achieving strategic fit is critical to success</td>
<td>Drivers of SC Performance, A framework for structuring Drivers Obstacles to Achieving Strategic Fit</td>
<td>Discussion Questions</td>
<td>51-67 Discussion Questions</td>
<td>Realize the importance of Fit</td>
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<tr>
<td>2010-07-07</td>
<td>Session 3</td>
<td>Understand the role that distributors play in the Supply Chain</td>
<td>Distribution, Factors, Design Options for Networks</td>
<td>Discussion Questions</td>
<td>69-97 Discussion Questions</td>
<td>Examine locations</td>
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<tr>
<td>2010-07-08</td>
<td>Session 4</td>
<td>Develop a framework for making network design decisions</td>
<td>Models for Facility Location and Capacity Allocation</td>
<td>Case Study</td>
<td>98-134 Managing Growth at SportStuff.com</td>
<td>Analyse optimum number of facilities</td>
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<td>2010-07-21/22</td>
<td>Session 11</td>
<td>Forecast demand in SC given historical demand data</td>
<td>Forecast Characteristics, Components, Methods, Approach</td>
<td>Case Study</td>
<td>169-203 Specialty Packaging Corp.</td>
<td>Prediction of Demand</td>
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<tr>
<td>2010-07-26/27</td>
<td>Session 12</td>
<td>Time Series, Measures of Forecast Error</td>
<td>Case Study</td>
<td>169-203 Specialty Packaging Corp.</td>
<td>Prediction of Demand</td>
<td></td>
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<tr>
<td>2010-07-28</td>
<td>Session 13</td>
<td>Balance Costs efficiently</td>
<td>Fixed Costs, Quantity Discounts, Trade Promotions</td>
<td>Case Study</td>
<td>249-295 Delivery Strategy at MoonChem</td>
<td>Prediction of Demand</td>
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<tr>
<td>2010-07-29</td>
<td>Session 14</td>
<td>Measure product availability</td>
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MID-TERM TEST

Chapter 11: Managing Uncertainty in the Supply Chain - Safety Inventory

Chapter 12: Sourcing Decisions in a Supply Chain

Chapter 13: Sourcing Decisions in a Supply Chain

Chapter 14: Transportation in the Supply Chain

Chapter 15: Pricing and Revenue Management in the Supply Chain

Chapter 16: Information Technology and the Supply Chain

FINAL TEST
6. METHODOLOGY

The course will have a number of components, including lectures, software demonstrations, hands-on work with the computers, quizzes, homework, and exams.

- Each class begins with a brief summary of the previous lecture.
- A daily lecture and PowerPoint presentation to highlight and elucidate the readings.
- Interspersed student involvement exercises and discussions.
- A summary of the main points.
- Lectures are given with the support of PowerPoint and a Projector.

7. EVALUATION

The student will be assessed through daily participation and evaluation by written work and testing. By the conclusion of this class the student will be able to recognize and identify key objectives and will be able to fundamentally apply what was learned based upon the information given in this bi-mester of instruction.

7.1 Assessment Criteria
- Completion and knowledge of the assigned course readings,
- Two in-class examinations,
- Two out-of-class examinations,
- Completion of assigned homework
- Classroom participation

7.2 Performance Markers
1. Appreciates Logistics Environment
2. Recognizes relationship among company phases
3. Recognizes the importance of Fit
4. Examines locations
5. Analyzes optimum number of facilities
6. Predicts Demand
7. Calculates Service Level
8. Identifies relationship with suppliers
9. Assesses combination of transportation modes
10. Prepares Price Strategies
11. Applies ERPs benefits

7.3 Weighting
- Unit Quizzes 15%
- Homework 15%
- Unit Exams 70%

8. BIBLIOGRAPHY

8.1 REQUIRED

Supply Chain Management, Sunil Choppra – Peter Meindl (2nd. Edition)
8.2 COMPLEMENTARY

Contemporary Logistics, Paul R. Murphy

8.3 HANDOUTS

Case Studies and Discussion Questions to be developed every weekend

8.4 WEBLIOGRAPHY

www.knu.edu.tw/knu1/web/teach/tan/2007ILSC
http://escmp.org/career/certification.asp
www.ism.ws/certification/content.cfm?ItemNumber=4706&navItemNumber=15556
EBSCO DATABASE

9. FACULTY INFORMATION

<table>
<thead>
<tr>
<th>NAME:</th>
<th>Vicente Maldonado</th>
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<tbody>
<tr>
<td>ACADEMIC CREDENTIALS--UNDERGRAD:</td>
<td>B.S. Economics, Universidad Católica de Guayaquil</td>
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<tr>
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<td>Master in Logistics, EOI Business School, Seville – Spain</td>
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<td>E – MAIL:</td>
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10. Prepared by: Vicente Maldonado Espinoza Date: June, 2010

Reviewed by: Dean Monica Reynoso Date: June, 2010