1. COURSE DESCRIPTION

This course examines the different stages behind the production activities of firms that require a methodic use of logistics and related techniques. The goal of this approach is the continuous improvement of performance in terms of customer satisfaction, quality, cost reduction and productivity.

2. JUSTIFICATION

This course will help the students to understand why and how Business short term and long term activities should be planned in order to achieve efficiency and effectiveness in their process. Profitability will be the result of efficient and effective process. The students will understand the main concepts behind production planning and productivity in order to become competitive on the world market.

3. OBJECTIVES

a. GENERAL

Learn all the necessary tools and techniques in order to measure and evaluate the actual production system of a firm and how to make improvements. The student will learn how to plan the capacity in the short, medium, and long term.

b. SPECIFIC

- Understand a process and its main components.
- Learn how to forecast the demand in order to plan production
- Learn how to measure the efficiency in any process.
- Learn how to compute and compare productivity
- Learn the concepts of aggregated demand and master schedules
- Learn the MRP technique and Just in time applied to production
- Learn how to schedule short term work and activities
- Learn how to manage inventories
4. COMPETENCIES

Demonstrate how to apply proven method, and techniques to manage efficiently and effectively the production function in a business considering quality as a competitive advantage.

5. COURSE CONTENT OUTLINE

<table>
<thead>
<tr>
<th>DATE</th>
<th>SPECIFIC COMPETENCES</th>
<th>CONTENT</th>
<th>NON CONTACT HRS (96 HRS.)</th>
<th>ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Subject(s) to be covered</td>
<td>Assignment &amp; number of allotted hours-specify pages</td>
<td>How assignment will be evaluated</td>
</tr>
<tr>
<td>Jul 5</td>
<td></td>
<td>FORECASTING &amp; DEMAND PLANNING</td>
<td>Reading pag. 175 – 211 5 HRS</td>
<td>Case Study</td>
</tr>
<tr>
<td>Jul 6</td>
<td>Applies a managerial method to make a good forecast of the demand and then plan the production of a company</td>
<td>PRODUCTION, CAPACITY, TYPES OF PRODUCTION PROCESS</td>
<td>Reading pag 247 – 276 5 HRS</td>
<td>Quiz: Computes and prepares a Schedule of production based on a forecasted demand</td>
</tr>
<tr>
<td>Jul 7</td>
<td></td>
<td>PRODUCTION MIX LINEAR PROGRAMING</td>
<td>Reading 5 hrs</td>
<td>Quiz: The student identifies capacity and production process</td>
</tr>
<tr>
<td>Jul 12</td>
<td>Identifies concepts and types of measures to evaluate the performance of a production process</td>
<td>MEASURING PRODUCTIVITY</td>
<td>Reading pag. 312 – 340 5 HRS</td>
<td>Quiz: Computes the right mix of production in order to max profits</td>
</tr>
<tr>
<td>Jul 19</td>
<td></td>
<td>SHORTTERM SCHEDULING</td>
<td>Reading pag 389 – 416 5 HRS</td>
<td>Quiz</td>
</tr>
<tr>
<td>Aug 2</td>
<td>Locates the firms resources (human and capital) to achieve an efficient production process</td>
<td>AGGREGATED DEMAND PLANNING, MRP I and II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 9</td>
<td>Understand how to make a schedule of resources in production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agu 11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug 16</td>
<td>Demonstrates the understanding of new methods to manage the inventory of a firm.</td>
<td>JIT SYSTEMS</td>
<td>Reading pag. 453 – 478 7 HRS</td>
<td>Quiz: Demonstrates the understanding of JIT applications in production</td>
</tr>
<tr>
<td>Aug 17</td>
<td>INVENTORY MANAGEMENT</td>
<td>Reading pag. 602 – 631 5 HRS</td>
<td>Homework: Computes the EOQ of a firm</td>
<td></td>
</tr>
<tr>
<td>Aug 18</td>
<td>INVENTORY MANAGEMENT</td>
<td>Reading pag. 602 – 631 5 HRS</td>
<td>Homework: Computes the EOQ of a firm</td>
<td></td>
</tr>
<tr>
<td>Aug 23</td>
<td>MIDTERM</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. METHODOLOGY
STUDENTS WILL BE REQUIRED TO READ ALL THE PRESCRIBED TEXTS & CASE STUDIES PRIOR TO CLASS. EXERCISES EXAMPLES IN CLASS WILL BE DEVELOPED BY THE TEACHER AND STUDENTS. HOMEWORK WILL BE ASSIGNED AND EVALUATED. EXAMINATION, QUizzes AND CLASS WORK

- Board explanations presented by instructor.
- Text book review & study including cases as presented.
- Examination, quizzes, class discussion.

7. ASSESMENT

7.1. ASSESMENT CRITERIA

- Completion and knowledge of the assigned course readings
- Completion of assigned homework
- Classroom participation

7.2. PERFORMANCE MARKER

- Evaluates the current condition of a Firm, in terms of efficiency, utilization and productivity.
- Prepares a Production strategy and plans.
- Prepares a good forecast of the demand.
- Applies modern technologies such as Excel and the Solver to solve Production problems.
- Evaluates the proper capacity plan to use.
- Chooses the best production process.
- Computes the best Inventory policy.
- Identifies when it’s the right time to apply for production.
- Prepares schedules of aggregated demand, and short term schedules.

7.3. WEIGHTING

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUIZZES, HOMEWORK/CLASS WORK</td>
<td>30%</td>
</tr>
<tr>
<td>MIDTERM</td>
<td>35%</td>
</tr>
<tr>
<td>FINAL EXAM</td>
<td>35%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>
8. BIBLIOGRAPHY

8.1 REQUIRED
INTRODUCTION TO OPERATIONS MANAGEMENT BY: WILLIAM J. STEVENSON. 8TH EDITION/ MCGRAW HILL

8.2 COMPLEMENTARY
- OPERATIONS MANAGEMENT PRODUCING GOODS AND SERVICES, BY DONALD WATERS
- INTRODUCTION TO MANAGEMENT SCIENCE

8.3 HANDOUTS:
They will be provided

8.4 WEBLIOGRAPHY:
EBSCO DATABASE

9. FACULTY INFORMATION:

NAME: Vicente Maldonado Espinoza

ACADEMIC CREDENTIALS-UNDERGRAD:
B.S. Economics, Universidad Católica de Santiago de Guayaquil, Ecuador.

GRADUATE:
Master Executive in Logistics, EOI Business School Seville, Spain

EMAIL: vmaldonado@uees.edu.ec

10.

Prepared by: Vicente Maldonado Date: June, 2010

Reviewed by: Dean Monica Reynoso Date: June, 2010