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 plan 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

To apply proven methods, 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>ASSESMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 11</td>
<td>Applies a managerial method to make a good forecast of the demand and then plan the production of a company</td>
<td>FORECASTING &amp; DEMAND PLANNING</td>
<td>Reading pag. 175 – 211 5 HRS</td>
<td>How assignment will be evaluated</td>
</tr>
<tr>
<td>Jan 12</td>
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<td>Jan 13</td>
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<tr>
<td>Jan 14</td>
<td>“</td>
<td>Quiz 3HRS</td>
<td></td>
<td>Computes and prepares a Schedule of production based on a forecasted demand</td>
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<tr>
<td>Jan 15</td>
<td></td>
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<tr>
<td>Jan 18</td>
<td>Identifies concepts and types of measures to evaluate the performance of a production process</td>
<td>PRODUCTION, CAPACITY, TYPES OF PRODUCTION PROCESS</td>
<td>Reading pag 247 – 276 5 HRS</td>
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<tr>
<td>Jan 19</td>
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<td>Jan 20</td>
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<tr>
<td>Jan 21</td>
<td>“</td>
<td>Quiz STUDY 3 HRS</td>
<td></td>
<td>Assesses the student on the understanding of capacity and production process</td>
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<tr>
<td>Jan 25</td>
<td></td>
<td>PRODUCTION MIX LINEAR PROGRAMING</td>
<td>Reading 5 hrs</td>
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<tr>
<td>Jan 26</td>
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<td>Jan 27</td>
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<tr>
<td>Jan 28</td>
<td>“</td>
<td>Quiz</td>
<td></td>
<td>Computes the</td>
</tr>
<tr>
<td>Date</td>
<td>Title</td>
<td>Reading Page(s)</td>
<td>HRS</td>
<td>Description</td>
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<tr>
<td>Feb 1</td>
<td>MEASURING PRODUCTIVITY</td>
<td>312 – 340</td>
<td>3</td>
<td>5 HRS</td>
</tr>
<tr>
<td>Feb 2</td>
<td>&quot;</td>
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<tr>
<td>Feb 3</td>
<td>&quot;</td>
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<tr>
<td>Feb 4</td>
<td>MID TERM STUDY</td>
<td></td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Feb 8 – Feb 11</td>
<td>Locates the firms resources (human and capital) to achieve an efficient production process</td>
<td>389 – 416</td>
<td>5</td>
<td>Demonstrates the understanding of how to make a schedule of resources in production</td>
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<tr>
<td>Feb 17 – Feb 23</td>
<td>AGGREGATED DEMAND PLANNING</td>
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<tr>
<td>Feb 24 – Feb 25</td>
<td>Demonstrates the understanding of new methods to manage the inventory of a firm.</td>
<td>453 – 478</td>
<td>7</td>
<td>Demonstrates the understanding of JIT applications in production</td>
</tr>
<tr>
<td>Mar 1, 2</td>
<td>INVENTORY MANAGEMENT</td>
<td>602 – 631</td>
<td>5</td>
<td>Computes the EOQ of a firm</td>
</tr>
<tr>
<td>Mar 3</td>
<td>&quot;</td>
<td></td>
<td></td>
<td>Homework, class work 6HRS</td>
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<tr>
<td>Mar 4</td>
<td>&quot;</td>
<td></td>
<td></td>
<td>FINAL EXAM 17 HRS</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. ASSESSMENT

7.1. ASSESSMENT CRITERIA

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

7.2. PERFORMANCE MARKERS

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
Prepares schedules of aggregated demand, and short term schedules

7.3. WEIGHTING

QUIZZES 40%
HOMEWORK/CLASS WORK 10%
MIDTERM 25%
FINAL EXAM 25%

8. BIBLIOGRAPHY

8.1 REQUIRED
OPERATIONS MANAGEMENT PRODUCING GOODS AND SERVICES, BY DONALD WATERS

8.2 COMPLEMENTARY
INTRODUCTION TO MANAGEMENT SCIENCE

8.3 HANDBOUTS:
8.4 WEBLIOGRAPHY:

9. EBSCO DATABASE

10. FACULTY INFORMATION

NAME: IAN ECHEVERRIA

ACADEMIC CREDENTIALS-UNDERGRAD:
INGENIERO EN CIENCIAS EMPRESARIALES – UEES

GRADUATE: