

## Operations Management

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### COURSE INFORMATION

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BUS/SCM | 300-level | 3 credits | 45 contact hours

**Professor:** Ibon Zamanillo, Ph.D.

| **Email:** Provided onsite

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### REQUIRED TEXTBOOKS & COURSE MATERIALS

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Jay Heizer, Barry Render. *Principles of Operations Management*, 9<sup>th</sup> Edition, Pearson, 2014. ISBN: 0132968363

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### DESCRIPTION

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This course develops students' abilities to effectively analyze the decision-making concepts of operations planning, implementation, and control, aids in understanding these concepts. It provides a forum for written communication concerning operations management topics.

The topics to be covered in this course include forecasting, customer service, and inventory management, just-in-time production, supply chain management, and quality assessment and improvement in both services and manufacturing.

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### STUDENT LEARNING OUTCOMES

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Upon successful completion of this course, students will be able to:

- Recognize the need for alignment between a company's operations and its strategic and sustainability goals.
- Assess strategies for extending competitive advantages to companies through successful operations management.
- Predict future sales revenues for a variety of conditions.
- Assess and manage inventory levels to effectively and efficiently meet demand.

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### OUTLINE

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Term-specific information provided onsite.

| Session | Topic  | Readings |
|---------|--|----------|
| 1       | Introduction, Syllabus discussion, form groups | -----    |
| 2       | Introduction to operations management          |          |
| 3       | Operations & Productivity                      | Ch 1     |
| 4       | Operations & Productivity                      | Ch 1     |
| 5       | Operations Strategy for Competitive Advantage  | Ch 2     |
| 6       | Forecasting                                    | Ch 4     |
| 7       | Forecasting                                    | Ch 4     |
| 8       | Design of Goods and Services                   | Ch 5     |
| 10      | Managing Quality                               | Ch 6     |

|    |   |              |
|----|---|--------------|
| 11 | Process Strategy <i>1<sup>st</sup> report due</i> | Ch 7         |
| 12 | Process Strategy                                  | Ch 7         |
| 13 | Catch up and review                               | Ch 1-7       |
| 14 | Capacity Planning                                 | Supplement 7 |
| 15 | Location Strategies                               | Ch 8         |
| 16 | Layout Strategy <i>2<sup>nd</sup> report due</i>  | Ch 9         |
| 17 | Layout Strategy                                   | Ch 9         |
|    | 1 <sup>st</sup> midterm exam                      | Ch 1-8       |
| 18 | Supply Chain Management                           | Ch 11        |
| 19 | Supply Chain Management.                          | Ch 11        |
| 20 | Inventory Management                              | Ch 12        |
| 21 | Inventory Management                              | Ch12         |
| 22 | MRP and ERP. <i>Final Report Due</i>              | Ch 14        |
| 23 | MRP and ERP                                       | Ch 14        |
| 24 | JIT TPS and Lean Operations.                      | Ch 16        |
| 25 | Review for the final                              | Ch 8-16      |
| 26 | <b>Final Exam</b>                                 | Ch 9-16      |

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## GRADES

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### Course Requirements:

#### Class Attendance

Students are required to attend every class and actively participate in all class activities.

#### Case Presentation

Students are required to complete a ten-minute PowerPoint case presentation, plus a five-minute discussion following the presentation. Students will be evaluated on their ability to lead a discussion about their cases.

#### Midterm/Final Exam

There will be two exams throughout the semester. Each exam will cover topics, readings, discussion, and lectures from previous classes. Exams will consist of multiple-choice, short answer, and essay questions.

#### Term Project/Presentation

Students are required to work together in a team to complete the case presentation and the term project. The term project will consist of a 20-page research paper, typed, double-spaced. All papers must include each student's name and submitted in a hard copy (one per group), stapled.

The case presentation will be a group presentation on a case related to the term project. Each group must prepare a 10-minute PowerPoint presentation.

Each group paper must contain the following sections:

- 1) Identification of the firm: (min 2 pages) list three potential firms. This section must include a selection of one firm and the reason why the group has chosen this firm over the others.
- 2) Description of the firm: (min 6 pages) include all necessary information on the operational circumstances of the selected firm.

- a. Brief historical background.
  - b. Current corporate strategy and operational strategy.
    - i. Corporate organizational chart and the specific organizational chart in the industrial area, including a description of the key positions in the area. If there would be any relevant relationship among those positions, they should be explained.
  - c. Identification of the core competences and competitive advantages if existing. You can use Michael Porter's theory for that.
  - d. Brief description of the firm's product portfolio.
  - e. List of the key technologies of any kind implanted in the firm
  - f. Identification of any dependency that the firm might be subject to from external stakeholders: suppliers, customers, financial institutions, public administration, regulator, raw materials...
  - g. An approach about the firm's cost structure and its dependency over any cost factor fluctuation.
  - h. Description of the different profile of workers and knowledge that are considered key for the success of the firm.
  - i. Any other aspect considered relevant to understand this case.
- 3) Development of the case: explain how the firm manages one or more of the following challenges:
- a. Productivity
  - b. Design of goods and services
  - c. Quality
  - d. Design and implementation of the operational process
  - e. Capacity planning
  - f. Selection of the location of a new plant
  - g. Design of the layout of the plant
  - h. Inventory management
  - i. Implementation of a just-in-time or lean production system
  - j. Implementation of an ERP

**Assessment:**

|                           |     |
|---------------------------|-----|
| Class Attendance          | 10% |
| Case Presentation         | 15% |
| Midterm Exam              | 25% |
| Final Exam                | 25% |
| Term Project/Presentation | 25% |

**Grade Scale:**

|    |        |    |       |
|----|--------|----|-------|
| A  | 100-93 | C  | 76-73 |
| A- | 92-90  | C- | 72-70 |
| B+ | 89-87  | D+ | 69-67 |
| B  | 86-83  | D  | 66-63 |
| B- | 82-80  | D- | 62-60 |
| C+ | 79-77  | F  | 59-00 |

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**DISABILITY POLICY**

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Every effort will be made to accommodate students with disabilities or special learning needs. If you have a documented disability for which you have already requested accommodations through the USAC Central office, your instructor will have been notified so that arrangements can be made early in the term.

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**ACADEMIC HONESTY POLICY**

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Plagiarism, cheating, submitting work of another person or work previously used and other forms of academic dishonesty will lead to lowered course grades, failure of the course or more severe measures, depending on judgments of the gravity of the individual case.

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**STATEMENT ON AUDIO AND VIDEO RECORDING**

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Surreptitious or covert video-taping of class or unauthorized audio recording of class is prohibited by law and by USAC policy. This class may be videotaped or audio recorded only with the written permission of the instructor. In order to accommodate students with disabilities, some students may have been given permission to record class lectures and discussions. Therefore, students should understand that their comments during class may be recorded.