GONZAGA-IN-FLORENCE SYLLABUS

Course: OPER 340: Operations Management
Instructor: Alessandro Pazzaglia

Schedule: Monday, Tuesday and Thursday 11:35 AM – 12:35 PM

Office hours: by appointment. Contact info: pazzaglia@gonzaga.edu


Course Description:

This course mainly concerns the contemporary organization of the Production function. Starting with a description of the relationships among the three most important functions within a company (Finance-Operations-Marketing) it focuses on the different types of strategies that must be formulated and implemented in contemporary firms. These strategies are related to the whole company and to the departments which affect the Productive system (Productivity, Design Process, Reengineering Process, Process plan, Human Resources, etc.). It also considers the new ways of doing business through E-commerce activities and its views on the perspective of the Producer and Consumer as well. A strong consideration is given to Total Quality Management which is the new system which companies should apply to be able to achieve a high level of quality, along the whole supply chain, according to the demand of the market especially now-a-days in a globalized world in which Competition among businesses is getting stronger and which changes the International Business pattern.

Course Objectives:

This course is designed to provide students with knowledge of Operations Management in a global business environment. Particular importance is given to the Statistical Process Control and control charts construction. It gives the opportunity to understand the Design process for products and services, as well as Innovation Processes. Various types of Processes for both physical productions and service productions are analyzed in depth concerning characteristics, layouts and resources required. Students should be able to understand the role and importance of Supply chains and supply chain management especially regarding Inventory, Inventory Costs, Order Quantities and, Forecasting as a crucial process for companies. Finally, students should also understand the elements and benefits of Lean Production Systems, as the latest evolution of Operations Management Methods.

Learning Outcomes:

At the end of the course students should have knowledge of the importance of Operations Management as one of the basic functions, as the technical core and as a transformation Process of different types of organizations, both in domestic markets and in an International setting. Students should be able to know methods and instruments for establishing levels of productivity, discovering existing and potential quality problems associated with productions and services delivery, how to design Product and Services Layouts, methods for determining the Forecasted amount of Production and distribution according to a specific Supply Chain.

Course Organization:

The course is structured using the following teaching method:
- Lectures;
- Topic discussions;
- In-class exercises (a calculator is required);
- Audio-visual material:

**Tests and Exam Format:**

Tests and Exams will have the following format:
- True & False Questions;
- Multiple Choice questions;
- Problem Solving;
- Short and/or Long essays:

**Grading System:**

The weight of every different test is as follows:
- 30% Final exam;
- 30% Mid-term exam;
- 30% tests taken during the course;
- 10% participation in class and homework

**Grades:**

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<th>Percentage Range</th>
<th>Grade</th>
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<tr>
<td>94-100 %</td>
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<tr>
<td>90-93.9%</td>
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<td>86-89.9%</td>
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<td>83-85.9%</td>
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<td>80-82.9%</td>
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<td>65-69.9%</td>
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<td>60-64.9%</td>
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<td>Below 60%</td>
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**Exams:**

No make-up exams are offered. If you have any serious problem and justification that require the missing of an exam or test you should contact the instructor as soon as possible. Missing an exam or test is the equivalent of an F that will be factored.

**Attendance Policy and Academic Honesty:**

It is required to observe Gonzaga in Florence's policy regarding absences.

Be reminded that it is disrespectful and distracting to the instructor and the other students for being late. Punctuality is required.
COURSE OUTLINE (A detailed Syllabus with dates will be provided at the beginning of classes):

September
- Getting to know the students. Administrative information. Presentation of course.
- The operations function as defined today and the relationship with other important functions of the company
- From productions to operations management: the evolution in history
- Globalization today: benefits and risks.
- The three levels of competitiveness. The productivity ratio as a measure of competitiveness.
- The four steps of the strategy formulation process. Competition priorities.
- Measuring the company’s performance.

October
- The meaning and dimensions of Quality; the Quality from the Consumer’s and Producer’s perspective.
- Total Quality Management (TQM) and its principles.
- TQM in Services.
- Quality improvement; the cost of quality: good and poor quality Costs.
- The impact of Quality Management on Productivity.
- Measure Instruments of Quality Costs. Identifying quality problems and causes.
- The basics of the Statistical Process Control (SPC).
- Statistical Process Control in TQM. Quality measures: attributes and variables.
- Construction of Quality Control Charts for Attributes and Variables (p-Charts, c-Charts, x-Charts and R-Charts)
- The stages of the design process for products.
- The service design process: steps and characteristics of services
- Types of production processes and the process selection with break-even analysis.

November
- Make or buy decisions: equipment selection, process plan and analysis.
- The Process Innovation: steps and the technology decisions involved.
- Different types of basic layouts
- Designing Process Layouts (Block Diagramming and Relationship Diagramming)
- Designing Product Layouts (Line Balancing)
- Different types of hybrid layouts
- The project management and its elements

December
- Supply chain management and the importance of information through the supply chain.
- Global Supply Chain procurement and distribution.
- The role of forecasting in supply chain management, the components of forecasting demand, time series methods and the forecast accuracy.
- Inventory management: elements, costs and control systems.
- Lean Production Systems: elements and benefits.
- Lean Production in Service Companies