UNIVERSITAT POMPEU FABRA

Syllabus for the course: Operations Management

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1. Course description data

- Name of the course: **Operations Management**
- Academic Year: **2011-2012** Term: **Second**
- Degree: **Grau en International Business Economics**
- Course code: **21140**
- Number of credits ECTS: **5**
- Teaching language: **English**
- Faculty: **Àlex Grasas (AG) and Pawel Rudnicki (PR)**

Professor - Theory	Àlex Grasas
Professor - Seminars	Àlex Grasas/Pawel Rudnicki

Àlex Grasas
Office 20.1E68
alex.grasas@upf.edu
Office hours: Thursdays from 12:00h to 13:00h or by appointment.
Questions on the course contents will not be replied by email.

Pawel Rudnicki
pawel.rudnicki@upf.edu
Office hours: by appointment

Schedule:

	Group 1		
Theory	Th-F: 9:00h to 10:30h		
	S101	**S102**	**S103**
Seminars	M 12:30h to 14:00h	W 9:00h to 10:30h	M 14:00h to 15:30h
Prof	AG	PR	AG

*Group change not allowed unless done formally via Secretary

2. Presentation of the course

Operations Management (OM) is one of the key functional areas in any organization or company that deals with the production of goods and services. These activities take place in all companies, either public or private. OM is concerned with managing the processes that transform inputs (materials, labor, energy, customers) into outputs (goods and services). Everything we wear, eat, use, read or play with, has been produced, and an operations manager organized its production. This course is concerned with the tasks, issues and decisions of those operations managers who have made the services and products on which we all depend.

The OM field faces many challenges that are consequence of globalization, new product proliferation, technology advances, and integration with other functional areas of the company (marketing, finances, etc.).

In this course we are going to study the main concepts, tools and quantitative models that companies use to manage their Operations. We are going to do so from a very practical standpoint, studying business cases and solving exercises

3. Competences to be achieved in the course

The objective of this course is to introduce students to the different production and operations activities that take place in companies and organizations, and to examine how strategic and tactical decisions are made.

General competences:

- Master the computer tools and their main applications for the ordinary academic activity.
- Have a proactive attitude in the desire to know what is ignored, essential throughout the entire training process and all professional activity with projection.
- Ability to apply learned knowledge with flexibility and creativity and adapt them to new situations and contexts.
- Demonstrate a level of knowledge sufficient for professional performance.
- Use the appropriate information in formulating proposals and troubleshooting.
- Ability to communicate effectively as a professional level oral and written, also using the advantages offered by ICT.
- Identify the key factors of a problem.
- Apply relevant knowledge and procedures to a range of complex situations.

Specific competences:

- Be able to identify the main functions of the area of Operations Management.
- Ability to relate the area of operations with business strategy and its relationship with other functional areas of business such as marketing or logistics function.
- Ability to identify and plan production and operations activities of a company, such as product and process design, total quality, production planning, inventory management.
- Ability to use basic analytical tools and methods mentioned above for the planning and management in the area of production and operations.

4. Contents

1. Introduction to Operations Management
2. Product and Service Design
3. Process Analysis
4. Just-in-time Production System and Lean Manufacturing
5. Forecasting
6. Aggregate Planning
7. Inventory Management
8. Material Requirements Planning (MRP)
9. Quality Management
10. Scheduling

5. Evaluation

The course evaluation is as follows:

- 60% Final Exam
    - Multiple choice test with theory and exercises
- 25% Quizzes during Seminars:
    - 6 quizzes (1 per Seminar) where the top 5 count 5% each
- 15% 3 Practical Cases during lectures (see calendar):
    - Report and Presentation in teams (4 or 5 people/team). Teams with less than 4 members are not allowed and will get no credit.

September Evaluation: evaluation will be done using one of the following options to be chosen by the student:

1. **Continuous Evaluation**:
    - Exactly as in the regular evaluation detailed above (60%+25%+15%).
2. **Classic Evaluation**:
    - A final exam that consists of a multiple choice test + exercises (100%).

IMPORTANT: To pass the course a minimum average grade of 5 (out of 10) is needed as well as a minimum grade of 4 (out of 10) in the final exam.

NOTE: Evaluation for UPF ERASMUS students outside Catalonia, or for those that cannot attend lectures or seminars will be identical (as seen above), with no exceptions. In case of absence, no absence notes will be accepted.

6. Bibliography and Teaching Resources

Basic bibliography:

- R.B. Chase, F.R. Jacobs and N.J. Aquilano, 2009, "Operations and Supply Management", 12th ed., McGraw-Hill.
- Correspondence between Course Chapters and Book Chapters:
  - Chapter 1: book chapters 1 and 2.
  - Chapter 2: book chapter 4.
  - Chapter 3: book chapters 6, 7, 8 and 20.
  - Chapter 4: book chapter 12.
  - Chapter 5: book chapter 15.
  - Chapter 6: book chapter 16.
  - Chapter 7: book chapter 17.
  - Chapter 8: book chapter 18.
  - Chapter 9: book chapter 9.
  - Chapter 10: book chapter 19.

Supplementary bibliography:

- E. M. Goldratt, J. Cox, "The Goal", North River Press (1992).
- Heizer, J.; Render, B. *Dirección de la producció. Vol. 1. Decisiones estratégicas.* 8a. ed. Madrid: Prentice Hall, 2007. (Spanish)
- Heizer, J.; Render, B. *Dirección de la producció. Vol. 2. Decisiones operativas.* 8a. ed. Madrid: Prentice Hall, 2007. (Spanish)

7. Methodology

The teaching/learning activities will be:

- Lectures (face-to-face in the classroom): theoretical background and basic examples will be taught.
- Seminars (face-to-face in the classroom): seminars where practical exercises will be discussed among students, guided by the instructor. These activities require previous preparation by the student.
- Individual quizzes during the last half an hour of the seminar.
- Team work in the 4 practical cases carried out during lectures. Team presentation of the case. It is required to bring a laptop per team for the last 3 cases (days: Feb. 17, Mar 2, Mar 15 and 16).
- Independent work outside the classroom, individual or in teams.

8. Course Dossier

Support material for the course is available on the Aula Global – Moodle and consists of:

- Slides for each chapter in pdf format.
- Case studies and exercises for the seminars.
- Relevant videos

9. Activities Schedule

Week	Thursday	Friday	Seminar
1	Chapter 1: Introduction to Operations Management	Chapter 2: Product and service design	-
2	Chapter 3: Process Analysis	Chapter 3 (continued)	-
3	Chapter 4: 4. Just-in-time Production System and Lean Manufacturing	Case Kristen's Cookie Company (T3)	-
4	Case Kristen's Cookie Company (T3)	Chapter 5: Forecasting	Seminar 1: Chapter 3
5	Chapter 5 (continued) - Chapter 6: Aggregate Planning	Chapter 6: (continued)	-
6	Chapter 7: Inventory Management	Case Gimondo (T6)	Seminar 2: Chapter 5
7	Case Gimondo (T6) – Chapter 7: (continued)	Chapter 7: (continued)	Seminar 3: Chapter 6
8	Chapter 8: Material Requirements Planning	Case Windobot (T7)	Seminar 4: Chapter 7
9	Case Windobot (T7) – Chapter 9: Quality Management	Chapter 10: Scheduling	Seminar 5: Chapter 8
10	UPF Game	UPF Game	Seminar 6: Chapter 10