

Degree programme	Type	Course
Accounting and Finances	OB	3

Contact lecturer

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Group languages

You can consult this information at the [end](#) of the document.

Prerequisites

The course does not require any prior knowledge to take it.
Obviously, the administrative requirements must be met to enroll.

Objectives

The subject considers the following teaching objectives:

- Introduce the student to the functional area of Operations, in its strategic and operational aspects, both for industrial and service companies.
- Present the modern approach of the Operations Management as a foundation to achieve the integrated management of the company, that is, the synchronization of the the procurement, manufacturing and distribution subsystems seeking the optimization of material flows and showing its relationship with the Management and Commercial Control systems.
- That the student is able to evaluate for a company, strategic decisions (design of goods and services, design of productive capacity, ...), tactics (planning of the activity) and operational (allocation of resources, measurement of productivity and continuous improvement) in the field of Operations Management.
- Train the student in the design of the layout of a production process to evaluate the resources that are necessary for its correct operation and budgeting.
- Provide the student with those theoretical concepts and methodologies and techniques necessary to achieve all of the above.

Learning outcomes

- CM29 (Defend a business strategy for all areas and functions with decisions, actions, approaches and objectives.) Defend a business strategy for all areas and functions with decisions, actions, approaches and objectives.
- CM30 (Discover the effects of the general and sectoral environment on the competitive situation of the business organisation.) Discover the effects of the general and sectoral environment on the competitive situation of the business organisation.
- CM31 (Assess the resources and capacities of the business organisation.) Assess the resources and capacities of the business organisation.
- CM33 (Create a feasible programme to implement the organisation's strategy.) Create a feasible programme to implement the organisation's strategy.
- KM24 (Determine actions to implement a process of change in the internal sphere of companies and organisations.) Determine actions to implement a process of change in the internal sphere of companies and organisations.

Contents

Topic I - INTRODUCTION TO OPERATIONS MANAGEMENT

- Operations as a source of competitive advantage Production strategies.
- Logistics system and its Evolution.
- The Directorate of Operations in service companies.
- Principles of the Lean Manufacturing Philosophy.

Topic II - CAPACITY AND PERFORMANCE MEASURES

- Capacity of a process.
- Bottleneck.
- Capacity planning.
- Capacity changes over time.
- Productivity.
- Utilization, effectiveness and efficiency of a production system.

Topic III - PROCESS DECISIONS

- Product Definition
- Types of production Layout.
- Work study.
- Process Operation Diagrams.
- Production lines.
- Balancing of production lines.

Topic IV - PRODUCTION PLANNING

- Hierarchy of planning decisions.
- The Aggregate Planning process.
- Methods to develop the Master Production Plan (MPS).

Topic V - THE PLANNING OF THE NEEDS OF MATERIALS

- Product definition and Bill of Materials (BOM).

- Material Requirements Planning (MRP).
- Releases of production and purchase orders.

Topic VI - PROJECT PLANNING

- Definition and types of projects.
- Temporary planning of projects.
- Resource planning.
- Critical path and resource over-allocation.
- Project reports.

Topic VII - PRODUCTION SCHEDULING

- Programming criteria.
- Heuristic Methods for Programming with several machines.
- Job Sequencing Process.
- Johnson's algorithm.

Topic VIII - INVENTORY MANAGEMENT WITH INDEPENDENT DEMAND

- ABC analysis and rotations.
- Inventory management costs.
- EOQ model.
- The Reorder Point (Q) system.
- The fixed period system (P).

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
laboratory practice	25	1	CM31, CM33, KM24
Fulfillment of cases	11.5	0.46	CM31, CM33, KM24
Theoretical Classes	24.5	0.98	CM29, CM30
Tutorships	19	0.76	CM29, CM30, CM31, CM33, KM24
Workshops and Cases Elaboration	31	1.24	CM29, CM30, CM31, CM33, KM24
Study the given materials	31	1.24	CM31, CM33, KM24

The planned teaching for the subject is classroom teaching.

Throughout the course, the different program topics will be covered. All materials will be available on the Virtual Campus, and it is recommended that students study the topic to be covered beforehand to motivate and

improve their understanding.

To achieve the indicated competencies as naturally as possible, the sessions will combine the presentation of theoretical concepts with practical exercises.

Some hours of specific teaching in group practice are listed. These hours will be used to complete case studies and workshops (document preparation) and to learn specific software for project planning (laboratory practices).

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Paper Airplane Manufacturing Report Document	5 %	1	0.04	CM31, KM24
Classroom test #1	10%	0.5	0.02	CM31, KM24
Partial Exam (Midterm exam)	25%	2	0.08	CM29, CM30, CM31, CM33, KM24
SAP Exercise	5 %	1	0.04	CM31, CM33, KM24
Final Exam	40%	2	0.08	CM29, CM30, CM31, CM33, KM24
Classroom test #2	10%	0.5	0.02	CM31, KM24
Project Development & planning	5%	1	0.04	CM29, CM31, CM33, KM24

This subject does not offer the option for comprehensive evaluation.

The evaluation of the students will be carried out according to the following activities of continuous assessment :

- Paper Airplane Game Activity Report (group) - 5%
- Classroom Test #1 - 10%
- Midterm Exam (PE) - 25%
- Project Planning, using MS Project or similar (group) - 5%
- Classroom Test #2 - 10%
- SAP Practice - 5%
- Final Exam (FE) - 40%

Tests and exams will be individual. No computer will be used.

Midterm exam: this exam covers the first part of the subject and includes theoretical questions and problems.

As a continuous assessment system, to be eligible to take the final exam, the following requirements must be met:

- At least 3 deliveries of activities 1, 2, 4, and 5 must be made.
- Obtain a minimum grade of 4 in the sum of the grades of these activities divided by 4.

If both requirements are not met, the subject is definitively failed, and the grade will be the result of the weightings or a 4.8 (if the grade obtained is higher). If this is met, the student may take the final exam and continue with the continuous assessment of the subject:

- The final exam will cover the second part (topics after the midterm exam, therefore, the course is relieved) and will include the theoretical section and problems.
- The final qualification (FQ) will be the percentage of the 7 continuous activities: GRQ (general rule qualification) = (Airplane Game)*5% + (Test #1)*10% + (PE)*25% + (Project)*5% + (Test #2)*10% + (SAP Practice)* 5% + (FE)*40%

And with these possibilities:

a) If the qualification of FE $\geq 3,5$

- If $GRQ \geq 5 \rightarrow FQ = GRQ$ (subject passed)
- If $GRQ [3.5, 5) \rightarrow$ Retake
- If $GRQ < 3.5 \rightarrow FQ = GRQ$ (subject failed)

b) If the qualification of FE $< 3,5$

- Si la $GRQ \geq 3.5 \rightarrow$ Retake
- Si la $GRQ < 3.5 \rightarrow NF = GRQ$ (subject failed)

c) Retake exam (RE)

- Si $RE \geq 5 \rightarrow FQ = 5$ (subject passed)
- Si $RE < 5 \rightarrow$ (subject failed). $FQ = GRQ$, if $GRQ < 5$. $FQ = 4.8$, if $GRQ \geq 5$

The student who has not participated in any of the assessment activities will be considered "Not evaluable".

Retake exam: will cover all the material in the subject.

Honor qualification: if the grade is not sufficient, the professor may propose a final project to the student to achieve this grade.

Repeat students: students who retake the course may opt to skip the continuous assessment and take both exams (EP and EF) as long as they have obtained a grade higher than 7 in the Aircraft Project, Project Planning, and SAP Practice. For the calculation of the GRQ, grades of 5 out of 10 for these three activities will be used.

Use of AI

Use prohibited.

The use of Artificial Intelligence (AI) technologies is not permitted in any phase of this subject. Any work that includes AI-generated sections will be considered a breach of academic dishonesty and may result in a partial or total penalty on the assignment grade, or greater penalties in serious cases.

Academic fraud

The completion of assessment activities is subject to the provisions set out in this course guide and in the "[Policy of the School of Economics and Business on the Detection of Irregularities during Assessment](#)"

[Activities](#)"; which regulates the conditions under which assessment tasks are conducted and the procedures applicable in cases where indications of irregularities are detected. Students are encouraged to consult the policy.

Calendar of evaluation activities

The dates of the evaluation activities (exercises in the classroom, assignments, ...) will be announced well in advance during the semester (Campus Virtual). The dates of the final exam and mid-term exam are scheduled in the assessment calendar of the Faculty.

"The dates of evaluation activities cannot be modified unless there is an exceptional and duly justified reason why an evaluation activity can not be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity." Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB).

Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an "Application for exams' reschedule" on the Faculty website.

Grade revision process

After all grading activities have ended, students will be informed of the date and way in which the course grades will be published.

Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

The date of the retake exam will be posted in the calendar of evaluation activities of the Faculty.

Irregularities in evaluation activities

In spite of other disciplinary measures deemed appropriate, and in accordance with current academic regulations, "in the case that the student makes any irregularity that could lead to a significant variation in the grade of evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of various irregularities occur in the evaluation of the same subject, the final grade of this subject will be 0". Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).

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- Verge, X. y Martínez J.L.(1992): Estrategia y Sistemas de Producción de las Empresas Japonesas. 1ª

Software

Students carry out laboratory practices where they learn the operation of the MS project or similar software for planning program, as well as the SAP HANA ERP (Production Planning module).

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(TE) Theory	10	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	50	Catalan/Spanish	second semester	afternoon
(PAUL) Classroom practices	101	Catalan/Spanish	second semester	morning-mixed
(PAUL) Classroom practices	501	Catalan/Spanish	second semester	afternoon