240EO036 - Business Project Management

Coordinating unit: 240 - ETSEIB - Barcelona School of Industrial Engineering  
Teaching unit: 758 - EPC - Department of Project and Construction Engineering  
Academic year: 2017  
Degree: MASTER'S DEGREE IN MANAGEMENT ENGINEERING (Syllabus 2012). (Teaching unit Compulsory)  
ECTS credits: 3  
Teaching languages: Spanish

Teaching staff

Coordinator: AGUEDA GARCIA CARRILLO  
Others: HECTOR ORTIZ VALENCIA  
AGUEDA GARCIA CARRILLO

Prior skills

Basic knowledge on Project engineering

Degree competences to which the subject contributes

Generical:
3. Acquire skills related to the design and management of complex organizations, including people management, financial aspects, production, project management, and allocation and distribution of resources for managers and management problems.
4. Know and understand the organization of a company and the sciences that define their activity, ability to understand business rules and relationships between planning, industrial and commercial strategies, quality and profit.

Teaching methodology

1. FACE-TO-FACE TEACHING (28h + 2h exam)
   - In each unit of the course, the basic concepts will be presented at the beginning, with a progressive involvement of the students.
   - Every session includes:
     (i) A theory exposition carried out by the Professor (expositive class)
     (ii) Expositive class with the participation of the students, as part of the implementation of the theory: examples and up-to-date analysis
     (iii) Oral exposition of the student's assignments.

2. Self-driven study and group assignments. Cooperative learning (45 h)
   - Development of deliveries. May cover problem definition, search and analysis of information, development of topics, writing of reports and presenting the results.
   - Self-driven review of the topics covered in the classes. Particularly those topics related to regulations and design of procedures. May include reading of selected literature.

Learning objectives of the subject

The main objective of this course is to provide the student with knowledge, tools and skills for managing projects in an efficient and organized way.
The following objectives also apply:
After successfully taking this course, the student shall:

1- Be able to define, identify and apply the key processes and phases in a project's lifecycle.
2- Understand the fundamentals for managing integration, scope, quality, human resources, communication, risk, procurements and stakeholders.
3- Understand the role of a project manager in different organizational structures.
4- Know the different project management standards and the different options for professional certification.
5- Be able to describe and defend his or her own ideas for starting, planning or executing projects.

<table>
<thead>
<tr>
<th>Study load</th>
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<tbody>
<tr>
<td><strong>Total learning time:</strong> 75h</td>
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<tr>
<td>Hours small group: 27h</td>
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<tr>
<td>Self study: 48h</td>
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## Content

### 1. Introduction to the project

**Learning time:** 13h  
- Theory classes: 3h  
- Laboratory classes: 1h  
- Self study: 9h

**Description:**  
Review of the project's fundamentals:  
- What is a project  
- Life cycle of the project  
- Stakeholders in a project  
- Desired service by the users  
- Functional analysis and design for the users  
- Project feasibility

**Related activities:**  
Case study: Identification of stakeholders, the project's environment, functional analysis of the project.

**Specific objectives:**  
At the end of this module, the students shall know and be able to use a common language to describe a project, its lifecycle and the generation of a project's objectives.

### 2. The role of the project manager in different organizational structures.

**Learning time:** 9h  
- Theory classes: 2h  
- Laboratory classes: 2h  
- Self study: 5h

**Description:**  
The role of the project manager and the project management office.  
Project management in different organizational structures:  
- Functional  
- Weak/balanced/strong Matrices  
- Projectized organizations

**Related activities:**  
Case study and short exercises.

**Specific objectives:**  
At the end of this module, students shall be able to define the role of the project manager in different organizational structures. Students shall also be able to discuss about advantages and disadvantages of the different organizational styles.
### 3. Integrated management of scope, time, cost and quality.

**Learning time:** 13h  
Theory classes: 2h  
Laboratory classes: 3h  
Self study: 8h

**Description:**  
Analysis and face-to-face exercises on integrated project management. Foundations in planning, monitoring and control of scope, time, cost and their relationship with perceived quality. The golden triangle. Introduction to tools for planning, monitoring and control in projects.

**Related activities:**  
Work in class on case studies. Presentation of results and discussion with the classroom.

**Specific objectives:**  
At the end of this module the student will have gained expertise in tools and processes for scope, time, cost and quality management.

### 4. Human resources, stakeholder, communications and risk management.

**Learning time:** 22h  
Theory classes: 4h  
Laboratory classes: 4h  
Self study: 14h

**Description:**  
Review of tools and techniques for HR, stakeholder, communications and risk management.

**Related activities:**  
Case study, work in class and at home.

**Specific objectives:**  
At the end of this module the student shall:  
- Understand and be able to propose the information flows needed within the project and with third parties.  
- Be able to do structured risk assessments and plan appropriate strategies to react to these.  
- Understand the role of the project sponsor within the organization.  
- Understand the tasking process, performance monitoring, workload balancing and workload conflict resolution.
## 5. Project Procurement management.

**Learning time:** 10h  
Theory classes: 2h  
Laboratory classes: 2h  
Self study: 6h

**Description:**  
- Processes and techniques for project procurement management.  
- Procurement planning: Resource breakdown, types of contracts, make-or-buy decisions, reaching suppliers, supplier selection.  
- Procurement execution: Bidding processes, proposal assessment, assignments, change control.  
- Procurement control and closure: Progress reports, invoicing and payment mechanisms, conflict resolution, auditing, contract termination negotiations.

**Related activities:**  
Analysis and discussion of situational exercises.

**Specific objectives:**  
At the end of this module, the student shall know the procurement processes. Must also understand the importance of a good procurement integration for project success.


**Learning time:** 6h  
Theory classes: 1h  
Laboratory classes: 2h  
Self study: 3h

**Description:**  
Introduction to the main professional accreditation bodies. Requirements of the different accreditation levels.  
Covering:  
- PMI (PMP)  
- IPMA  
- APM (PRINCE2)  
- ISO 21500:2012

**Related activities:**  
Analysis of similarities and differences between the different professional project management accreditation bodies.

**Specific objectives:**  
At the end of this module the student shall know different career paths towards professional project management practice.
Qualification system

The students rating will be based in the progress during the course. It will take into account the marks received in:

- The final exam (50%) (2h). Will have a theoretical part and a practical part (conceptual questions, problems, exercises, text discussion).
- Group work deliverables (30%). Obtained by the realization, delivery and defense on the days set by the Professor of the assignments proposed by the Professor.
- Individual contribution (20%) Related to results in individual exercises solved in the class or online.

As described, the final mark will be based on the following marks:

\[ N_{\text{final}} = 0.5 \times N_{\text{ef}} + 0.3 \times N_{\text{pc}} + 0.2 \times N_{\text{pi}} \]

- \( N_{\text{ef}} \): Mark of the final test
- \( N_{\text{pc}} \): Mark of the coursework carried out in group
- \( N_{\text{pi}} \): Individual coursework mark

The retest (re-evaluation) will be a test with the same structure and duration as the final test. The assessment of this retest will be carried out according the same formula used for the final assessment of the course.

Regulations for carrying out activities

The final test will include a theoretical and a practical part (problems, exercises, text discussion). Team assignments will be assessed according to technical and formal criteria. Document structure, orthography and grammar will also have be valued. The criteria used for correction will be communicated to the students. Individual contributions will be valued in content and in appearance during group discussions.

Extraordinary exam: In exceptional situations, students may choose an extraordinary final exam in replacement of the ordinary calibration process. To be eligible for this, students must present a written request, appropriately justified and supported, in advance of the final test (as long as the situation allows it). Extraordinary exam can be oral and/or written.
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Bibliography

Basic:


Complementary:


