



PERSONA CIENCIA EMPRESA
Universitat Ramon Llull

TITLE OF COURSE: INDUSTRIAL BUILDINGS

MATTER: Materials and Structures

MODULE: Specific Technology

PROGRAM TITLE: Degree on Industrial Technologies Engineering

GENERAL CHARACTERISTICS*

Type: Basic training, Compulsory elective, Optional

Final degree project, Practicum

Duration: Semestral

Semester/s: 4

Number of credits ECTS: 6

Language/s: Spanish, Catalan, English

DESCRIPTION

BRIEF DESCRIPTION AND JUSTIFICATION (the meaning of the course in relation to the studies. Between 100 and 200 words.)

The course focuses on Construction industry building design industry the use of appropriate building systems. They provide the basis for design and project buildings and industrial plants following safety criteria, health, energy efficiency and sustainability.

COMPETENCES (of the course made in relation to preassigned competences in this area.)

- Knowledge of materials science and technology that enables them to ' learning new methods and theories of dowry and versatility to adapt new situations. (E3)
- Ability to solve problems with initiative, decision making, creativity, and critical thinking. (E4)
- Knowledge that enable them to carry out measurements and calculations assessments, appraisals, surveys, studies, reports, work plans and other similar work. (E5)
- Easy to handle specifications, regulations and standards required compliance. (E6)
- Ability to communicate effectively, both orally and in writing, to impart knowledge and skills in the field of engineering industrial. (T1)
- Ability to use the English language as a foreign language. (T2)
- Ability to analyze and assess the social and environmental impact of the solutions techniques. (T6)
- Ability to understand the importance of working in a professional environment ethically responsible. (T7)
- Ability to develop learning skills needed to undertake further study and recognize the need for continuing education appropriate professional development. (T8)
- Knowledge and ability to calculate and design of structures and buildings industrial. (ET9)

PREREQUISITES* (modules, matters, courses and knowledge needed to follow the course. Can be stated that courses must have been completed.)
Have completed the Basic Training Module.

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CONTENTS (as a relationship of the chapters that constitute the contents, or topics covered, of the course to a second level detail.)

1. Industrial architecture and urbanism.
2. Conception and design of buildings and industrial plants.
3. Criteria security, health, energy efficiency and sustainability.
4. Location and implementation.
5. Construction systems and basic.
6. Management and Organization of industrial work.

METHODOLOGY

TRAINING ACTIVITIES* (Complete the table relating activities, workload in ECTS credits, and competences.)

Training activities	ECTS Credits	Competences
Sessions presentation of concepts (A1)	1.25	E3,E4,E6,E7,T6,TE9
Sessions for resolution of exercises, problems and cases (A2)	0.80	E3,E4,E5,T6,T7,T8 TE9
Seminars (A3)	0.15	E3,E4,E7,T2,T6,T7
Personal mandatory activities professor-student (A4)	0.04	E4,T6,T8,TE9
Practical work / laboratory (A5)	1.08	E5,TE9
Oral and writing presentations (A6)	0.07	E4,T1,T2,T6,T7,TE9
Personal study activities by students (A7)	2.36	E3,E4,T2,T6,TE9
Evaluation activities (exams, tests,...) (A8)	0.18	E3,E4,T1,T6,TE9
Jobs (A9)	0.15	E4,E5,E6,T1,T2,T8,TE9
Visits to companies (A10)	0.1	E4,T6,T8,TE9
TOTAL	6	

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EXPLANATION OF THE TEACHING METHODOLOGY (justifying the teaching methods used in relation to the competences and course contents. Between 100 and 200 words.)

The objectives of the course Industrial Constructions attained through classes lectures, and the practical application of knowledge will be specified in a banda Preliminary partially completed in hours of practice and otherwise in monitoring, through visits, several works under construction Both parties, theory and practice, involving a constant by the to help students acquire knowledge and practice in project construction.

For the study of the student staff, we provide the software necessary assessment tests through the learning management system, documents corresponding to the sessions and library resources.

EVALUATION

EVALUATION METHODS* (Fill in the table relating evaluation methods, competences and weight in the qualification of the subject.)

Evaluation Methods	Weight	Competences
Final Exam (A)	40%	E3,E4,E7,T6,TE9
Examination / s Partial / s / control / s scheduled / s (B)	15%	E4,T6,TE9
Activities done in class (C)	2%	E4,TE9
Exercises outside of class (D)	3%	E5,T1,T2,TE9
Reports realizats work (E)	9%	E3,E4,E5,T1,T2,T6,T8,TE9
Presentations and / or oral examinations (F)	1.5%	E4,T1,T7,T8,TE9
Modeling, Proposed, etc.. (G)	7.5%	E3,E6,
Laboratory reports (H)	5%	E4,E5,E6,T1,T6,TE9
Practical work / lab (I)	15%	E4,E5,E6,T6,TE9
Work in other centers (Practicum) (J)	0.0	
Participations (K)	2%	E4,T1,T8,TE9

LEARNING OUTCOMES (Explanation of the achievements of students that allow competences evaluation, relating to competences and evaluation methods.)

- The student must demonstrate knowledge of their scientific and technological enables them to learn new methods and theories and given a versatility to adapt to new situations. (E3) (A, E, G)
- Students should be able to solve problems with initiative, decision making, creativity, and critical thinking. (E4) (A, B, C, E, F, H, I, K)
- The student must demonstrate knowledge that enable them to carry out measurements,

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calculations, evaluations, appraisals, surveys, studies, reports, work plans and other similar works. (E5) (A, D, E, H, I)

- The student must demonstrate the ease of handling specifications, regulations and standards mandatory. (E6) (E, G, H, I)
- The student must demonstrate the ability to communicate effectively, both orally and in writing, to impart knowledge and skills in the field of industrial engineering. (T1) (D, E, F, H, K)
- The student must demonstrate the ability to use the English language as the language foreign. (T2) (D, E)
- Students should be able to analyze and assess the social and environmental technical solutions. (T6) (A, B, E, I)
- Students should be able to understand the importance of working in a professional environment ethically responsible. (T7) (F)
- The student must demonstrate ability to develop learning skills required to undertake further studies and recognizing the need for appropriate training for their professional development. (T8) (E, F, K)
- The student must demonstrate knowledge and ability to calculate and design structures and industrial buildings. (ET9) (B, C, D, E, F, H, I, K).

QUALIFICATION (Explanation of the calculation system of qualifying the course.)

The course evaluation will consider the marks in continuous assessment (CT) note of the draft (EP) and the final exam (EF). All these notes are about 10 and have a maximum value of 10. The final grade (CF) is the average of the subject weighted continuous evaluation (CE) (19%), the note placement (NP) (41%) and grade examinations (NE) (40%). Only if this note (CF) is greater than or equal to 5 the course is approved.

$$EC \text{ CF} = 0.19 + 0.41 + 0.40 \text{ NP NE.}$$

The Continuous evaluation (AC) is calculated as the average of the ratings obtained controls programmed activities in class, and class participation must be greater than 4 to pass the course.

The practical (NP) is calculated as the average of the marks obtained in the draft and related work. The practical (NP) must be greater than or equal to 4 to pass the course. This will recover before the final exam for the course and have a maximum score of 5. If the note continued assessment practices or the exam grade is below 4, final grade will be the lower of the two notes.

Attendance at classes and practices is required. An attendance of less than 80% classes I to 80% of sessions involve direct suspension education of the subject.

In accordance with the regulations of the institution, the actions of plagiarism (practice) or copy (test) detected directly affects the current call and immediately following for all students who participate in the action.

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EVALUATION OF COMPETENCES (Defining expressions of calculation for each competence based on corresponding evaluations activities.)

The powers obtained with E3 and E5 and training activities relating assessed by grading the final exam and practical.

The powers E4 ET9 obtained with T6 and educational activities relating to the classification and evaluated the final exam, the practical and continuous assessment. The powers E6, E5 and T2 obtained with training activities and evaluated by the relevant rating practices.

TEXTBOOKS (recommended and accessible to students.)

- MONJO CARRIÓ, J "Tratado de construcción: Sistemas". Editorial Munilla-Lería. 2001
- FERNÁNDEZ ORTEGA, L Etapas constructivas. Desde la elección del solar hasta las terminaciones de la obra., 2012
- CUCHÍ A., CASTELLÓ D., DíEZ G., SAGRERA A. (2003) Parámetros de Sostenibilidad. Barcelona: ITeC. ISBN 84-7853-455-5
- INSTITUT CERDÀ (1999) Guía de la Edificación Sostenible. Barcelona. ISBN 84-87104-38-X-Código Técnico de la Edificación, CTE. Ministerio de Vivienda. Marzo 2006.
- Reglamento de instalaciones térmicas en edificios según el R. D. 1027/2007 de 20 de julio de 2007
- Reglamento de seguridad contra incendio en los establecimientos industriales.

HISTORICAL DOCUMENT

EARLIER CHANGES

February de 2012. Núria Llaverías Baqués.

LAST REVISION

March 1, 2012, Núria Llaverías Baqués.

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