

390228 - TENG - Engineering Workshop

Coordinating unit: 390 - ESAB - Barcelona School of Agricultural Engineering
 Teaching unit: 745 - EAB - Department of Agri-Food Engineering and Biotechnology
 Academic year: 2019
 Degree: BACHELOR'S DEGREE IN FOOD ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
 BACHELOR'S DEGREE IN FOOD ENGINEERING (Syllabus 2009). (Teaching unit Compulsory)
 ECTS credits: 6 Teaching languages: Catalan, Spanish

Teaching staff

Coordinator: FRANCISCO IRANZO
 Others: JOANA RUBIO-JOAN MAJO-EDUARD HERNÁNDEZ

Opening hours

Timetable: The students will be informed at the beginning of the course.

Teaching methodology

The methodology is based on the learning through practical cases. The necessary information to develop calculations to produce the next designs will be delivered to groups of 3 students.

They will have to project:

- Design of a cold chamber
- Design of a fire installation
- Design of electric installation

The students shall do an executive project including the designs previously made and the following documents:

- Doc-I. Report and Annexes
- Doc-II. Plans
- Doc-II. Budget

Learning objectives of the subject

Once the student has passed the subject, they would have the basic knowledge to understand what an executive professional project consists of.

Study load

Total learning time: 60h	Hours large group:	30h	50.00%
	Hours small group:	30h	50.00%

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Content

title english	Learning time: 30h Theory classes: 30h
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<p>Description: Definitions and methodology on the project elaboration. Cycle project and agents involved. Structure of the executive projects. Budget planning, Security and health study. Quality control. Programming. Economic appraisal. The professional college.</p>	
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LOW VOLTAGE ELECTRIC INSTALLATIONS	Learning time: 10h Laboratory classes: 10h
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<p>Description: Regulation. Equipment. Line sizing (the highest intensity, brownout, shorting). Electrical safeguards for electrical lines, people and engines. Photometric calculations. Singleline schematic. Results implementation to be developed Project by the students group.</p>	
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FIRE INSTALLATIONS	Learning time: 10h Laboratory classes: 10h
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<p>Description: Analysis and implementation of the Regulation Fire in the Industrial Establishments (RSCIEI). Results implementation to be developed Project by the student group.</p>	
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REFRIGERATING FACILITIES	Learning time: 10h Laboratory classes: 10h
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<p>Description: Design of the refrigerating facility of a chamber, through a conventional system of simple compression. Location definition and constraints analysis. Thermal load calculation. Refrigerant selection. Calculation of the refrigeration cycle parameters through a commercial software. Selection of the main equipment of the installation composition. Compressor, implementation to be condenser, expansion valve, vessel and refrigerant pipelines. Results developed Project by the student group.</p>	
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Bibliography

Basic:

Gordon, J. E. Estructuras : o por qué las cosas no se caen. Madrid: Calamar, 2004. ISBN 8496235068.

Portocarrero, Felipe; Gironella, Natalia. Redacción profesional : técnicas de redacción para la empresa del siglo XXI. Oleiros, La Coruña: Netbiblo, DL 2009. ISBN 9788497452472.