

220043 - Sostenibilitat en l'Entorn Construït

Unitat responsable:	205 - ESEIAAT - Escola Superior d'Enginyeries Industrial, Aeroespacial i Audiovisual de Terrassa		
Unitat que imparteix:	758 - EPC - Departament d'Enginyeria de Projectes i de la Construcció		
Curs:	2018		
Titulació:	GRAU EN ENGINYERIA MECÀNICA (Pla 2009). (Unitat docent Optativa) GRAU EN ENGINYERIA EN VEHICLES AEROESPACIALS (Pla 2010). (Unitat docent Optativa) GRAU EN ENGINYERIA EN TECNOLOGIES AEROESPACIALS (Pla 2010). (Unitat docent Optativa) GRAU EN ENGINYERIA EN TECNOLOGIES INDUSTRIALS (Pla 2010). (Unitat docent Optativa)		
Crèdits ECTS:	3	Idiomes docència:	Anglès

Professorat

Responsable: MARTA GANGOLELLS SOLANELLAS

Metodologies docents

The course is divided into parts:

- Theory classes
- Practical classes
- Self-study for doing exercises and activities.

In the theory classes, teachers will introduce the theoretical basis of the concepts, methods and results and illustrate them with examples appropriate to facilitate their understanding.

In the practical classes (in the classroom), teachers guide students in applying theoretical concepts to solve problems, always using critical reasoning. We propose that students solve exercises in and outside the classroom, to promote contact and use the basic tools needed to solve problems.

Students, independently, need to work on the materials provided by teachers and the outcomes of the sessions of exercises/problems, in order to fix and assimilate the concepts.

The teachers provide the syllabus and monitoring of activities (by ATENEA).

Objectius d'aprenentatge de l'assignatura

Hores totals de dedicació de l'estudiantat

Dedicació total: 75h	Hores grup gran:	30h	40.00%
	Hores aprenentatge autònom:	45h	60.00%

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Continguts

(CAT) Energy certification and energy saving measures applied to the built environment

Dedicació: 75h

Grup gran/Teoria: 30h

Aprentatge autònom: 45h

Descripció:

(CAT) Introduction to energy consumption in the built environment
Introduction to the legal framework related to the energy efficiency in buildings

Limitation of buildings' energy demand. Software LIDER.

Energy certification of buildings. Software CALENER.

Energy saving measures

Real experiences on the integration of smart technologies (energy metering and sensor-actuator networks) in residential and tertiary buildings.

Activitats vinculades:

(CAT) Project developed in small groups related to an energy certification and proposal of energy performance improvements. Each group will choose the building object of analysis.

During some sessions, small exercises will be conducted in the class individually or in small groups and some others will be virtual.

Sistema de qualificació

The final grade depends on the following assessment criteria:

- Project (part 1), weight: 35 %
- Project (part 2), weight: 35 %
- Class activities, weight: 30 %

Non-satisfactory results in the project will be able to be redirected by improving the project individually after highlighting weak points. All the students have the right to improve the project. The improved project will have to be delivered the day scheduled by the school within the period of final exams. Marks in the improved project can range from 0 to 10. Only the best mark will be taken into account.

Bibliografia

Altres recursos:

Notes posted to the Atenea platform