

## 820059 - DCI - Design, Creativity & Innovation

Coordinating unit: 295 - EEBE - Barcelona East School of Engineering

Teaching unit: 717 - EGE - Department of Engineering Presentation

Academic year: 2015

Degree: BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN ENERGY ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN BIOMEDICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Teaching unit Optional)  
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Teaching unit Optional)

ECTS credits: 6 Teaching languages: Catalan

### Teaching staff

Coordinator: JOAQUIN FERNANDEZ SANCHEZ

Others: JOAQUIN FERNANDEZ SANCHEZ

### Degree competences to which the subject contributes

Specific:

1. Understand spatial vision and graphic representation techniques, whether using traditional metric and descriptive geometry methods or computer assisted design applications.
2. Understand the applications of business organisation.
3. Understand the basics of production and manufacturing systems.

Transversal:

4. ENTREPRENEURSHIP AND INNOVATION - Level 3. Using knowledge and strategic skills to set up and manage projects. Applying systemic solutions to complex problems. Devising and managing innovation in organizations.
5. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

### Teaching methodology

The method is based on the combination of three techniques:

1. Class presentations of the professor
2. Active participation of students, based on individual exercises discussion.
3. Development of a collaborative project

### Learning objectives of the subject

The main objective is to introduce students to creativity and design driven innovation in the context of technology.

## 820059 - DCI - Design, Creativity & Innovation

Technology & Design forms a key driver of the new global industry and services, and its study in the context of training of engineers facilitates the connection between engineering and markets, where firms operate.

### Study load

Total learning time: 150h	Hours large group:	45h	30.00%
	Hours medium group:	0h	0.00%
	Hours small group:	15h	10.00%
	Guided activities:	0h	0.00%
	Self study:	90h	60.00%

## 820059 - DCI - Design, Creativity & Innovation

### Content

(ENG) Disseny i creativitat. Conceptes i models.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Comprendre les actituds, els models i el procés de creativitat i disseny	
(ENG) Noves Tendències. Cool Hunting.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Identificar les tendències en els models de negoci i la seva relació amb la innovació en el disseny impulsat.	
(ENG) La integració entre els serveis i productes.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Comprendre els conceptes i mètodes per a la creació de productes i serveis innovadors orientats a l'èxit comercial de les empreses.	
(ENG) Gestió del disseny.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Entendre el procés de seguiment i comunicació del disseny a través de la cadena de valor en l'empresa.	

## 820059 - DCI - Design, Creativity & Innovation

(ENG) Obrir la innovació i el disseny col·laboratiu.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Entendre la connexió entre la gestió del disseny, la tecnologia i l'entorn social i econòmic en el context de co-disseny.	
(ENG) La informació i la comunicació en el disseny	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Comprendre i aplicar les eines i mètodes de disseny disponibles per a la indústria i els serveis.	
(ENG) El pensament integrador.	Learning time: 20h Theory classes: 4h Laboratory classes: 4h Self study : 12h
Description: (ENG) Entendre com el disseny, el pensament tècnic i comercial, convergeixen	
(ENG) Les empreses mundials i el disseny.	Learning time: 10h Theory classes: 2h Laboratory classes: 2h Self study : 6h
Description: (ENG) Entendre el rol del disseny en les empreses que operen a escala global.	

### Qualification system

Pretest at the beginning of each class: 25 %  
 Individual exercise: 25 %  
 Group Collaborative exercise: 50 %

## 820059 - DCI - Design, Creativity & Innovation

### Bibliography

#### Basic:

Best, K. Management del disseny : estrategia, proceso y práctica de la gestión del disseny. Barcelona: Parramon, 2007. ISBN 978-84-342-3270-9.

Lockwood, T.; Walton, T. Building design strategy : using design to achieve key business objectives. New York: Allworth, 2008. ISBN B14199956.

#### Others resources: