



Course guide

820454 - ETRAM - Transmission Elements

Last modified: 25/07/2016

Unit in charge: Barcelona East School of Engineering
Teaching unit: 712 - EM - Department of Mechanical Engineering.

Degree: **Academic year:** 2016 **ECTS Credits:** 6.0
Languages: Catalan, Spanish

LECTURER

Coordinating lecturer: Jesus M^a Petreñas Ranedo - JESUS MARIA PETREÑAS RANEDO

Others: Primer quadrimestre:
JESUS MARIA PETREÑAS RANEDO - T11, T12
ENRIQUE PORTA PASCUAL - T12

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:

- 6. Summarise information and undertake self-directed learning activities.
- 1. Understand the theoretical principles of machines and mechanisms.
- 2. Study the feasibility of a proposed project.

Transversal:

- 4. 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.
- 5. ENTREPRENEURSHIP AND INNOVATION - Level 1. Showing enterprise, acquiring basic knowledge about organizations and becoming familiar with the tools and techniques for generating ideas and managing organizations that make it possible to solve known problems and create opportunities.

TEACHING METHODOLOGY

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Hours small group	15,0	10.00
Self study	90,0	60.00
Hours large group	45,0	30.00

Total learning time: 150 h

CONTENTS

(ENG) Tema nº 1: Selecció d'elements d'accionament: motors y motorreductors



(ENG) Tema nº 2: Engranatges de dentadura recta exterior i interior

(ENG) (CAT) Tema nº 3: Engranatges de dentadura helicoidal i eixos paral·lels

(ENG) Tema12 . transmisiones de potencia y seleccion de motores .

(ENG) (CAT) Tema nº 4:trens d'enganatges

(ENG) (CAT) Tema nº 5: Acoblaments i embragatges

(ENG) (CAT) Tema nº6 :Transmissió de moviment per cadena de corrons

(ENG) (CAT) Tema nº 7: Transmissió de moviment per corretja de secció trapezial

(ENG) Tema nº 8: Transmissió de moviment per corretja dentada (síncrona)

(ENG) Tema nº 9: Aplicació en maquinària de tots els elements de transmissió.

GRADING SYSTEM

BIBLIOGRAPHY

Basic:

- Gibert Pedrosa, Jaime. Ingeniería de los engranajes. Barcelona: l'autor, DL 2005. ISBN 8460954552.
- Petreñas Ranedo Jesus. Transmisiones mecánicas. Barcelona: EUETIB apunts, 2010.

RESOURCES

Computer material:

- programes de càlcul de engranatges