Last update: 02-06-2015

# 820087 - TMP - Plastic Materials Technology

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

Teaching unit: 702 - CMEM - Department of Materials Science and Metallurgy

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

ECTS credits: 6 Teaching languages: Catalan, Spanish

## Teaching staff

Coordinator: JOSE ANTONIO BENITO

Others: JOSE ANTONIO BENITO

## Degree competences to which the subject contributes

Specific:

1. Summarise information and undertake self-directed learning activities.

2. Understand the general laws of mechanics, thermodynamics, fields and waves, and electromagnetism and apply them to engineering problems.

3. Understand manufacturing, metrology and quality assurance systems and processes.

4. Understand and apply the fundamentals of fluid mechanics systems and machines.

5. Understand and apply materials engineering techniques.

6. Understand the basic principles of fluid mechanics and its application to problems in the field of engineering. Calculate the parameters of ducts, channels and fluid systems.

Transversal:

7. 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.

## Learning objectives of the subject

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## Study load

| | | | |
|---|---|---|---|
| Total learning time: 150h | Hours large group: | 45h | 30.00% |
| | Hours small group: | 15h | 10.00% |
| | Self study: | 90h | 60.00% |

## Content

### (ENG) Introducció als materials polimèrics

Degree competences to which the content contributes:

### (ENG) Reologia de polímers

Degree competences to which the content contributes:

### (ENG) Extrusió I. Components de l'extrusora

Degree competences to which the content contributes:

### (ENG) Extrusió II. Procés d'extrusió

Degree competences to which the content contributes:

### (ENG) Extrusió III. Processos associats

Degree competences to which the content contributes:

### (ENG) Injecció I. Components de la injectora

Degree competences to which the content contributes:

### (ENG) Injecció II. Cicle d'injecció

Degree competences to which the content contributes:

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## Bibliography

Basic:

Michaeli, W. Plastics processing : an introduction.  Munich: Hanser, cop. 1995. ISBN 3446175725.