

## 60028 - Optics in the industrial environment

### Syllabus Information

**Academic Year:** 2019/20

**Subject:** 60028 - Optics in the industrial environment

**Faculty / School:** 100 - Facultad de Ciencias

**Degree:** 538 - Master's in Physics and Physical Technologies  
589 - Master's in Physics and Physical Technologies

**ECTS:** 5.0

**Year:** 1

**Semester:** First semester

**Subject Type:** Optional

**Module:** ---

### 1.General information

#### 1.1.Aims of the course

#### 1.2.Context and importance of this course in the degree

#### 1.3.Recommendations to take this course

### 2.Learning goals

#### 2.1.Competences

#### 2.2.Learning goals

#### 2.3.Importance of learning goals

### 3.Assessment (1st and 2nd call)

#### 3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

### 4.Methodology, learning tasks, syllabus and resources

#### 4.1.Methodological overview

This course has a predominantly practical nature, and therefore puts special importance on learning through practical cases. The introduction of the contents related to such applications and the analysis of the cases corresponds to 4 ECTS. The link between these contents and the industrial reality will be introduced by participatory seminars (1 ECTS) that will include talks with guest speakers.

#### 4.2.Learning tasks

The course includes the following learning tasks:

- Participatory lectures and case study analysis (4 ECTS).
- Participatory seminars dedicated to different industrial activities (1 ECTS).

#### 4.3.Syllabus

The course will address the following topics:

1. Vacuum deposition. Application areas.
2. Optical coating in architecture.

3. Physics in the thermo-solar and photovoltaic industry.
4. Optical instrumentation and measurement industry. Regulations.

#### **4.4.Course planning and calendar**

Further information concerning the timetable, classroom, assessment dates and other details regarding this course, will be provided on the first day of class or please refer to the Faculty of Science website <http://ciencias.unizar.es/>

#### **4.5.Bibliography and recommended resources**

[http://biblos.unizar.es/br/br\\_citas.php?codigo=60028&year=2019](http://biblos.unizar.es/br/br_citas.php?codigo=60028&year=2019)