

## 30044 - Flexible Automation and Robotics

### Información del Plan Docente

<b>Academic Year</b>	2016/17
<b>Academic center</b>	110 - Escuela de Ingeniería y Arquitectura
<b>Degree</b>	436 - Bachelor's Degree in Industrial Engineering Technology
<b>ECTS</b>	6.0
<b>Course</b>	4
<b>Period</b>	First semester
<b>Subject Type</b>	Optional
<b>Module</b>	---

### **1.Basic info**

#### **1.1.Recommendations to take this course**

#### **1.2.Activities and key dates for the course**

### **2.Initiation**

#### **2.1.Learning outcomes that define the subject**

#### **2.2.Introduction**

### **3.Context and competences**

#### **3.1.Goals**

#### **3.2.Context and meaning of the subject in the degree**

#### **3.3.Competences**

#### **3.4.Importance of learning outcomes**

### **4.Evaluation**

### **5.Activities and resources**

#### **5.1.General methodological presentation**

Robotics and Flexible Automation is an optional subject that delves into the knowledge of the fundamentals of automation acquired in previous courses, and contributes to the fundamentals of the industrial robot, which is the most flexible and versatile of the elements involved in automated production.

#### **5.2.Learning activities**

#### **5.3.Program**

## **30044 - Flexible Automation and Robotics**

Robot control and programming

- Morphology of the industrial robot and technologies.
- Spatial description
- Manipulator kinematics
- Robot programming
- Robot control system: trajectory generation and dynamic control.

Flexible automation and PLC advanced programming

Selection and implantation of industrial robots

Industrial robotics research

### **5.4.Planning and scheduling**

### **5.5.Bibliography and recommended resources**