

## STORAGE AND DISTRIBUTION NETWORKS

**Responsible professor: OLEGARIO CASTILLO LÓPEZ**

**Credits: 2,5 ECTS**

Brief description of the contents:

- Introduction to the calculation of hydraulic conditions
- Hydraulic calculations for a water supply network
- Water supply network modelling
- Pump units. General characteristics of centrifugal pumps. Types of pumps
- Calculation of a characteristic pump curve. Best operating point. Identical pumps in series and in parallel
- Water hammer in pressurised pipes

Detailed programme:

LEARNING BLOCK	TOPIC OR ACTIVITY
<b>B1</b>	Theory: Introduction to the calculation of hydraulic conditions.
<b>B2</b>	Theory/practical: Hydraulic calculations for a water supply network.
<b>B3</b>	Computer class (I): Water supply network modelling
<b>B4</b>	Computer class (II): Water supply network modelling
<b>B5</b>	Theory: Pump units. General characteristics of centrifugal pumps. Types of pumps.
<b>B6</b>	Theory/practical: Calculation of characteristic pump curve. Best operating point. Identical pumps in series and in parallel.
<b>B7</b>	Laboratory class (I): Calculation of characteristic pump curve.
<b>B8</b>	Laboratory class (II): Calculation of characteristic pump curve.
<b>B9</b>	Theory/practical: Water hammer in pressurised pipes.

Evaluation system:

SYSTEM	WEIGHT
<b>Final exam</b>	40 – 60
<b>Written essays</b>	40 – 50
<b>Presentation of exercises, topics and projects</b>	5 – 10
<b>Laboratory practices and/or practice report</b>	