|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| N° ECUE | XA4S620 | | | | | | | | |
| Title | Analytical chemistry for water | | | | | | | | |
| ECTS |  | Lecture(h)  CM 18 |  | Tutorials (h)  TD 10,5 |  | Pratical works (h) TP 32 |  | Project (h) |  |
| Description  This course allows the student to master the analytical techniques for analyzing water.  The main topics are: electrochemistry, UV-Visible spectroscopy, mass spectrometry and separation by chromatography.  Electrochemistry: analytical electrochemistry (intensity-potential curve, electrochemical metering techniques, the main probes Specific probes; Notions of chromatography; UV-Visible Spectroscopy; Mass spectroscopy  - Influence of complexation reactions on the strength of an acid. Understanding phenomena using SIMULTIT software  Spectrophotometry and zero current potentiometry  - Comparison of Spectrophotometric and Volumetric Reduction Assay Techniques (COD Simulation) - Spectrophotometry of flame and atomic absorption - gas chromatography- FID - ion chromatography (anions in water) - Complexiometry and ion exchange - Polarography (measurements of metal traces) - HPLC-UV pesticide analysis | | | | | | | | | |
| Key Words | * Monitoring of dissolved elements Electrochemistry HPLC-UV CPG-FID spectrophotometry UV-Visible | | | | | | | | |
| Type of Evaluation | Exam  Practical work | | | | | | | | |