

Course Syllabus

1. **Course number and name:** 020TCGNI2 Chemistry Laboratory
2. **Credit and contact hours:** 2 ECTS credits, 1 x 2.5 course hours
3. **Instructor's or course coordinator's name:** Jihane RAHBANI
4. **Text book:** General Chemistry Lab-work Guide
5. **Specific course information:**
 - a. **Catalog description:** This course aims to understanding hazards and risks and to find the pertinent safety guidelines and to expand the students' knowledge in the procedures, technics and safety protocols in the laboratory. Also to develop students' skills, in the qualitative inorganic chemical analysis and in the titration of different kind of mineral solutions, such as, acids solutions alkaline solutions, studying the oxidation reduction reactions, etc. And also to verify theoretical information by the determination of concentrations using electrochemical analysis methods such as pH-metric analysis. Students are trained to be familiar with all the equipment used in each labwork experience and to develop a solid basis for the study of the data interpretation.
 - b. **Prerequisites or co-requisites:** 020CHGNI1 General Chemistry
 - c. **Required / Elective / Selected Elective:** Required
6. **Specific goals for the course**
 - a. **Specific outcomes of instruction:**
 - Understand the basic knowledge of chemistry experiments and those learned from the chemistry course.
 - Select and find the proper literature based on the specific needs.
 - Use the commonly used lab equipment and understand the working principles.
 - Master the strategy of thinking and analyze the results properly.
 - b. **KPIs addressed by the course:**

KPI	a1	a2	b1	b2	b3
Covered	x			x	x
Assessed	x			x	x
Give Feedback	x			x	x

7. **Brief list of topics to be covered and approximate number of lectures**
 1. Lab-work Introduction – Basic technics – Security- Absolute and relative error. (2.5 lectures).
 2. Qualitative Analysis. (2.5 lectures).
 3. Acid Base Titration. (2.5 lectures).
 4. Precipitation Titration. (2.5 lectures).
 5. Oxidation Reduction Titration. (2.5 lectures).
 6. Complex Titration. (2.5 lectures).
 7. Conductometric Titration. (2.5 lectures).
 8. pH-metric Titration. (2.5 lectures).
 9. Spectrophotometric analysis. (2.5 lectures).