

## Process Engineering Lab

**1. Course number and name:** 020GEPCS5 Process Engineering Lab

**2. Credits and contact hours:** 2 ECTS credits, 1x1:15 contact hours

**3. Name of instructor:** Marina Daccache (Coordinator)

**4. Instructional Materials:**

- Lab Manual

**5. Specific course information**

**a. Catalog description:**

The Process Engineering Laboratory course provides an exploration of three fundamental methods employed in the industry for the efficient separation of dissolved or suspended substances within complex mixtures. These techniques include liquid-liquid extraction, absorption, and reverse osmosis. Through this laboratory course, students will have the opportunity to gain a concrete understanding of these processes and their applications, while also improving their problem-solving skills through practical experiments and data collection.

**b. Prerequisites:** 020TESCS3 Separation techniques

**c. Required/ Selected Elective/Open Elective:** Required

**6. Educational objectives for the course**

**a. Specific outcomes of instruction:**

- Understand fundamental principles of process engineering.
- Analyze experimental data.
- Utilize laboratory equipment and pilot benches.
- Solve practical problems related to process engineering using analytical and experimental approaches.

**b. PIs addressed by the course:**

PI	6.1	6.2	6.4
Covered	x	x	x
Assessed	x	x	x

**7. Brief list of topics to be covered**

- Liquid-liquid extraction
- Absorption
- Reverse osmosis