

## Multidisciplinary Project of Foundations and Structures

- 1. Course number and name:** 020PBAGS4 Multidisciplinary Project of Foundations and Structures
- 2. Credits and contact hours:** 6 ECTS credits, 3x1.25 hours
- 3. Name(s) of instructor(s) or course coordinator(s):** Muhsin Elie RAHHAL, Joanna NSEIR
- 4. Instructional Materials:**
  - a. Same textbooks used to complete the prerequisites courses
  - b. International codes (Eurocode 1 and 7)
  - c. Instructor's Class Notes
- 5. Specific course information**
  - a. **Catalog description:** Provide the necessary methodology of work to accomplish a complete foundation design for a given building and balance between safety and economy to find the adequate solution for each problem encountered during the assessment.
  - b. **Prerequisites or co-requisites:** 020PARGS1 Architectural Project; 020BEAGS3 Reinforced Concrete
  - c. **Required:** Required major course for all students.
- 6. Educational objectives for the course**
  - a. **Specific outcomes of instruction:**
    - Initiate students to teamwork by combining their efforts and skills
    - Know how to raise problems, allocate tasks and provide solutions to these problems
    - Propose a work plan according to a precise timetable and respect the deadlines
    - Apply the rules, standards and codes of constructions in a real case study
    - Prepare technical and calculation notes, develop drawings in accordance with engineering's guidelines and requirements
    - Learn how to accept or refuse a given solution by its practical, economical and safety sides
    - Enhance the students' writing and oral presentation skills in front of a jury
  - b. **PI addressed by the course:**

[illegible]

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

1. Introduction
2. Project presentation and data analysis of the given soil
3. Excavation stability methods
4. Foundation design
5. Work execution plan