

## Prestressed Concrete in Buildings

1. **Course number and name:** 020BPRGS5 Prestressed Concrete in Buildings
2. **Credits and contact hours:** 2 ECTS credits, 1x1.25 hours
3. **Name(s) of instructor(s) or course coordinator(s):** Georges ABOU SLEIMAN
4. **Instructional Materials:**
  - Instructor's Class notes
5. **Specific course information**
  - a. **Catalog description:** Explain the basic principles of the behavior of prestressed concrete structures with an emphasis on building applications.
  - b. **Prerequisites or co-requisites:** 020BEAGS3 Reinforced Concrete
  - c. **Required:** Required major course for Buildings and Engineering Management Specialty students.
6. **Educational objectives for the course**
  - a. **Specific outcomes of instruction:**
    - Historical View of Prestressed Concrete.
    - Different Procedures of Prestressed.
    - Losses Calculation of Prestressed cables.
    - Flexure in Service and Ultimate Design of Prestressed Concrete.
    - Shear Design.
    - Material characteristics and behavior.
  - b. **PI addressed by the course:**

<b>PI</b>	1.2	1.3	2.1	2.2
<b>Covered</b>	yes	yes	yes	yes
<b>Assessed</b>				

7. **Brief list of topics to be covered:**
  - Historical View of Prestressed Concrete (2 lectures)
  - Different Procedures of Prestressed (3 lectures)
  - Losses Calculation of Prestressed cables. (3 lectures)
  - Continuity in pre-stressed concrete beams definition and design (2 lectures).
  - Flexure in Service and Ultimate Design of Prestressed Concrete (2 lectures).
  - Material characteristics and behavior (2 lectures).