

Special Topics in Concrete

1. **Course number and name:** 020OSPGS5 Special Topics in Concrete
2. **Credits and contact hours:** 2 ECTS credits, 1x1.25 hours
3. **Name(s) of instructor(s) or course coordinator(s):** Rodolphe MATAR
4. **Instructional Materials:**
 - a. Eurocode 1 to 8 , BAEL , BPEL
 - b. Henry Thonier, Conception et Calcul des Structures Tome 1 to 6, Edited, Presses des Ponts. Paris, France.
 - c. Marius Diver , Calcul Pratique des Tours en Beton Arme ,Edited Dunod, Paris France.
 - d. Instructor's Class Notes
5. **Specific course information**
 - a. **Catalog description:** Special Topics Course is developed to cover specialized content not represented in the main curriculum , the course introduces students to a variety of design practices related to : different shapes of water reservoirs in upper and under ground situations ; Water Towers in reinforced concrete ; Industrial Tall Chimneys design and construction procedures ; Maritime Protection design (Introduction) .
 - b. **Prerequisites or co-requisites:** 020BEAGS3 Reinforced Concrete
 - c. **Required:** Required major course for Buildings and Engineering Management and Public Works and Transportation Specialty students.
6. **Educational objectives for the course**
 - a. **Specific outcomes of instruction:**
 - Introduce Students to the concept design of structures related to special building and infrastructure works.
 - Analytical approach for the pre-dimensioning of structural elements of the construction.
 - Familiarize the students to method statements related to special construction.
 - Develop the theoretical framework needed for the design of special building structures.
 - b. **PI addressed by the course:**

PI	1.3	1.4	2.1	2.2
Covered	yes	yes	yes	yes
Assessed				

7. Brief list of topics to be covered:

- 1-** Introduction (2 Hours)
- 2-** Flat And Tall Reservoirs Design In Concrete (2 Hours)
- 3-** Underground Reservoir In Concrete (2 Hours)
- 4-** Water Towers (4 Hours)
- 5-** Industrial Chimneys Design (2 Hours)
- 6-** Introduction To Maritime Protection (2 Hours)