

General Construction Procedures

1. **Course number and name:** 020PGCGS2 General Construction Procedures
2. **Credits and contact hours:** 4 ECTS credits, 2x1.25 hours
3. **Name(s) of instructor(s) or course coordinator(s):** Farah HOMSI & Bassam NASRALLAH
4. **Instructional Materials:**
 - a. Le Grand Livre de la Gestion de Projet, afnor editions, 2013
 - b. Précis de chantier : Matériel et matériaux, mise en œuvre, normalisation, 2001
 - c. Instructor's Class Notes
 - d. DTU (Document Technique Unifié)
5. **Specific course information**
 - a. **Catalog description:** This course aims to teach engineering students the main problems related to the execution of building construction projects. Topics include: Technical, financial and administrative analysis of the bidding documents - Management of projects in progress - Specifications and implementation techniques for civil engineering works from concrete to finishes - Construction machinery - Concrete components.
 - b. **Prerequisites or co-requisites:** None
 - c. **Required:** Required for all Civil Engineering students.
6. **Educational objectives for the course**
 - a. **Specific outcomes of instruction:**

Organization and management of projects:

 - Trades involved in construction: roles, responsibilities and relationships.
 - Preliminary studies for the start-up of a construction site: Tender documents
 - Coordination between different trades
 - Planning and monitoring work progress
 - Mobilization of the site: General layout

The building site – Concrete works:

 - Hoisting equipment: Tower cranes and other hoisting equipment
 - Installation and handling
 - Accidents prevention at construction sites

- Concrete plant: Different types of concrete plants (Installation and handling)
- Concrete implementation and pumping
- Steel workshop
- Formworks station: Various types of formworks, Wall forms, Slab forms Climbing and Sliding formworks
- Design of the various formwork types

The building site – Finishes works:

- Masonry works
- Interior and exterior plaster works, doors and windows, tiling, etc...
- Facades cladding, internal and external painting
- Tanking and waterproofing of various types of terraces
- Acceptable tolerances for various works

Quantify concrete composition /m³ reaching the required and specified concrete quality in terms of maneuverability and strength

Selection of site equipment for excavation

Introduction to the international Lebanese Norms

b. PI addressed by the course:

PI	1.1	1.2	1.4
Covered	yes	yes	yes
Assessed			

7. Brief list of topics to be covered:

Topics	Number of lectures
Introduction	1
Project organization and management	4
The Site – The Engines	4
The site – Concrete works	3
The site – Finishing works	2
The site – Formwork types and design	4
Concrete mix design (Dreux-Gorisse)	7
Norms	1
Site visits	2
Total	28