

**Birzeit University**  
**Civil Engineering Department**  
**Term project**  
**Contracts, Specifications and Quantity surveying (ENCE421)**  
**First Semester 2020/2021**

**Instructor: Mayaseen Abulibdeh**

The goal of this project is to allow the students to acquire a professional life experience. This real-life project will allow them to practice professional responsibilities by reading Drawings and Bill of Quantities and prepare a partial quantity takeoff.

Project items include the following points:

1. Excavation works
2. Steel reinforcement works
3. Concrete works
4. Stone works
5. Block works
6. Plastering works
7. Tiles works
8. Painting works
9. Carpentry works
10. Metal and aluminum works

In this project, the students will do the following tasks:

1. Calculate the cut and fill quantities.
2. Calculate the steel quantities required for the footings with the attached details (F2,F3 and F5).
3. Calculate the quantities required in the BOQ attached.
4. Re-arrange the attached BOQ using MasterFormat.

The students are encouraged to work in teams, **four students** each team, to learn how to communicate effectively. Each team must submit a detailed report showing all their work (excel sheets, word files, etc..). The report should be divided into four parts as follows:

1. The first part includes the excel sheet used to calculate the cut and fill volumes. Attach the drawing which shows the cells numbers as specified in your excel sheet. (30%)
2. The second part includes the re-arranged BOQ. (10%)
3. The third part includes the excel sheet used to calculate the steel reinforcement quantity for the footings shown with details. (20%)
4. The fourth part includes the BOQ with the quantities. (40%)

The students should prepare excel sheet for each calculated item. Supporting excel sheets with sample calculations on each item is MANDATORY.

Each report is to be of professional quality and follow the following guidelines:

The report must be stapled in the upper left-hand corner, and have 1” margins at the top, bottom and on each side. The paper must be typed using double-spaced lines. The type size must be clear and readily legible, in a standard size of 12 points and please use Times New Roman for font type. Each report should include a title page showing the names of each team member.

Submission of the final report

A final report that includes the four parts should be submitted on Thursday 21/1/2021 before 2:00 pm.