

Quantity Surveying - National Diploma (ND)

SIWES and Project

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Supervised Industrial Work Experience Scheme

Course: Supervised Industrial Work Experience Scheme		Course Code: QUS 216	Contact Hours: 4 - Months
Course Specification: Theoretical Content			
	General Objective 1.0: Inculcate into the students the work attitude require of them in the industrial setting.		
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	1.0 Understand the organizational structure in his/her place of attachment. 1.1 Identify the various departments/units of the organization. 1.2 Identify the functions of the various units or department in the organization. 1.3 Identify the relationships between the different units within the organization.		
General Objective 2.0 Know the general safety precautions in the construction industry.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	2.1 State the safety precautions required on a construction site. 2.2 Apply General safety regulations to work situation such as:- a. Personnel safety. b. Safety of other workers. c. Clothing. d. Cleanliness of work environment. e. Equipment/tools on the construction site.		
General Objective 3.0: Understand the various processes of site preparation.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	3.1 Interpret the working drawings either by sketching, demonstration or any other method as the case may be. 3.2 Conduct the Soil investigation by approved method such as trial holes, boreholes. 3.3 Perform on site and laboratory tests. 3.4 Carry out site clearing and leveling using appropriate equipment. 3.5 Set out building using builders or the theodolite methods..		

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General Objective 4.0: Understand the methods of setting out of building.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	4.1 Interpret building drawings. 4.2 Make working drawings from building design. 4.3 Dig trenches in accordance with the set out lines for even and uneven grounds. 4.4 Establish the final level of the concrete footing using leveling pegs and spirit level.		
General Objective 5.0: Understand the various construction processes.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	5.1 Evaluate the various operations and how they are being sequenced. 5.2 Identify the various operatives involved in the construction processes, participating where feasible. 5.3 Evaluate the economy in the use of labour, material and equipment with high initial costs especially for repetitive works such as scaffolding in metal forms as opposed to timber forms.		
General Objective 6.0: Understand the post contract relationship among the various professionals, contractors and the client with regard to site meetings and valuations.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	6.1 Distinguish the parties to the contract 6.2 Explain the relationship between the professional Quantity Surveyor and other professionals like Architects, Engineer, Clerk works, etc and state their responsibilities on the site. 6.3 Write a valuation report and valuation certificate for a given project stating which professionals are responsible for other certificates. 6.4 State the strength of a payment certificate with regards to the contractor's capability in collecting payment from the client		

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General Objective 7.0: Know how to read and interpret drawings for residential and office building			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>7.1 Evaluate the convention being adopted in folding, storing and retrieval of drawings.</p> <p>7.2 Interpret production drawings i.e plans, elevations, sections, and details drawings</p> <p>7.3 Interpret simple Engineering drawings, e.g plans, sections, and details drawing</p> <p>7.4 Make the drawings of an architect project from designs produced by an architect</p>		
General Objective 8.0: Undertake the working-up of simple buildings.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>8.1 Carry out squaring operations.</p> <p>8.2 Check measured quantities from traditional and “cut and shuffle” sheets.</p> <p>8.3 Describe basic abstracting operations.</p> <p>8.4 State the arrangement of trade sections in the previous bill</p>		
General Objective 9.0: Understand the Taking-off of quantities, for simple buildings of not more than three bedroom bungalow under the following sections: substructure, concrete work, block and brick work, roofing work, wood work, metal work, finishing and painting and decorating.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>9.1 Check the production drawings for discrepancies and report any incorrectness on the drawings.</p> <p>9.2 Apply standard methods of measurement (SMM) to various work sections.</p> <p>9.3 Prepare a sequence of measurement for the various work sections.</p> <p>9.4 Take-off quantities applying the SMM to the various sections.</p> <p>9.5 Title, page and sign, dimension sheets.</p>		

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General Objective 10.0: Know the mechanisms of site administration and the safety health and welfare regulations operative at the site.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>10.1 Illustrate the organizational chart of the site.</p> <p>10.2 Describe the relationship between the various construction team of the company.</p> <p>10.3 Identify the placement of accident prevention signs including provisions of lighting, telephone etc on site.</p> <p>10.4 Identify the establishment of first aid boxes and their locations on site.</p> <p>10.5 Identify the type of unions that exist on the site.</p> <p>10.6 Evaluate the social services provided by the contractor to his staff.</p> <p>10.7 State the grievances procedure in the construction firm.</p>		
General Objective 11.0: Know the methods of ordering, receiving requisitioning and checking of materials on site.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>11.1 Evaluate the procedure in ordering materials for construction works.</p> <p>11.2 Check material invoices on delivery.</p> <p>11.3 Issue out materials from site store following appropriate procedures.</p>		
General Objective 12.0: Know how to produce technical reports with bar charts of all activities undertaken during the Supervised Industrial Work Experience Scheme programme.			
Week	Specific Learning Outcomes:	Teachers Activities	Resources
	<p>12.1 Record all the activities that are carried out each day (each student should possess "an industrial attachment log book" to do this).</p> <p>12.2 Record the weekly summary of his/her activities in his/her log book and have it certified by his industry based supervisor.</p> <p>12.3 Record graphically his/her weekly activities using bar charts.</p>		

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Week	Specific Learning Outcomes:				Teachers Activities	Resources
	12.4 Write a monthly summary of his/her activities for his/her supervising lecturers comments in his/her log book 12.5 Write a comprehensive technical end-off industrial attachment report					
	Activities 1. Understanding 2 Read and interpret					
	Week One	Week Two	Week Three	Week four		
	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5		
	Assessment: Practical - 50%; Report - 50%					
	Competency: The student should be able to know the basic principles of quantity surveying work and attitude required within the Construction Industry.					

Project

Course: PROJECT		Course Code: QUS 214	Contact Hours: 60
Course Specification: Theoretical Content			
General Objective 1.0: Take-off the quantities from simple drawing			
Week	Specific Learning Outcome:	Teachers Activities	Resources
1-5	1.1 Square-up the dimensions. 1.2 Work-up the quantities in 1.1 above.	<ul style="list-style-type: none"> • Inspect the various drawing submitted and give approval. • Mark taking-off process and give approval to proceed. • Mark working up process and give approval to proceed. 	<ul style="list-style-type: none"> • Architectural drawings • Taking-off sheet • Abstracting sheets • Calculators
General Objective 2.0: Prepare a draft bill of quantities			
6-12	2.1 Prepare a draft bill of quantities excluding the conditions of contract, preliminaries and Trade preambles. 2.2 Conduct market survey to obtain prices of various building materials. 2.3 Build-up the rates using information obtained from 2.2 above. 2.4 Price-up the draft bill of quantities.	<ul style="list-style-type: none"> • Inspect draft bill for conformity to existing practice and give approval to proceed. • Make comparison of prices obtained at market survey. • Inspect rate analysis for uniformity to existing practice. • Inspect priced draft bill for errors in extension and total. 	<ul style="list-style-type: none"> • Billing sheets • A-4 size sheets • Calculators