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ESTM102 – Applied Quantity Surveying

The terms “quantity surveying or quantity surveyors” in North America are synonymous with construction estimating or construction estimators. Even the Canadian Institute of Quantity Surveyor’s (CIQS’s) website, describes a quantity surveyor as “construction cost consultants/cost estimators [who] work for either the client or the contractor and can be based in an office or on-site. They make sure the costs of large construction and infrastructure projects are accurately estimated based on initial requirements and project specs.” The actual discipline of quantity surveying first involves the quantification of construction materials required to meet the job requirements – a skill set in and of itself. This course focuses on that discipline by applying the processes and procedures required to complete accurate and consistent material “take-offs” for pricing or even ordering purposes.

Who should attend?

New construction estimators, field engineering staff or supervisors required to order materials as part of their responsibilities, those considering a career as a quantity surveyor or industry professionals who want to learn how a quantity survey is completed will all benefit from this course.

What does quantity surveyor do?

A quantity surveyors’ responsibility is to calculate the quantity of material needed to complete a project by surveying the construction documents and doing what we call a material “take off”. However, the duties of a quantity surveyor are greatly expanded as they become experts in costing, cost analysis, estimating and project financing.

According to the CIQS’s introduction video, a quantity surveyor is:

- Part Architect
- Part Engineer
- Part Contractor
- Part Lawyer
- Part Accountant

What will the course cover?

- What is a quantity surveyor and what does he or she do
- Proper practices and procedures of quantity surveying

- General rules and methods of measurement of construction works
- How quantity surveys are organized and structured
- How the MasterFormat® system is used by quantity surveyors
- How items of construction are identified for quantity surveying
- Applied quantification of items of earthwork
- Applied quantification of items of concrete
- Applied quantification of items of formwork
- Applied quantification of items of concrete masonry units

What will you learn?

Learning Outcomes:

Upon successful completion of this course, participant will be able to:

1. Identify the origin of the items for quantification in a general contractor environment.
2. Describe the various standard practices and procedures used in the quantity surveying discipline
3. Identify 10 steps to a successful take off.
4. Explain the mathematical principles behind basic quantity surveying processes.
5. Complete a detailed and comprehensive quantity survey for items of work including earthwork, substructure and superstructure for a small commercial structure.
6. Understand how the quantity survey dovetails to the eventual estimate.

How will you learn it?

Online discussions using a slide presentation will provide the basis of the course. Participants will be provided with a set of construction plan documents for the purposes of completing the various applied quantity surveying tasks, and a form for analogue quantity surveying, which could be adapted to a digital environment. The course facilitator will provide instruction and examples of the various material take-offs but registrants will largely 'learn by doing' under the guidance of the facilitator.

Day one – Introductions, definitions and quantity surveying processes

Day two – Applied learning – quantifying earthwork items

Day three – Applied learning – quantifying substructure items

Day four – Applied Learning – quantifying superstructure items and conclusions

5 Gold Seal Credits

