

# **Construction Engineering Technology**

## **PROGRAM EDUCATIONAL OBJECTIVES**

1. Graduates of our program will attain positions of responsibility within the various aspects of the construction industry.
2. Graduates of our program will have the necessary skills to avail themselves of the opportunities for lifelong learning and professional development.

## ***Student Outcomes***

- a. An ability to select and apply the knowledge, techniques, skills and modern tools of the discipline to broadly define engineering technology activities;
- b. An ability to select and apply a knowledge of mathematics, science, engineering and technology to engineering technology problem that require the application principles and applied procedures and methodologies;
- c. An ability to conduct standard tests and measurements; to conduct, analyze and interpret experiments; and to apply experimental results to improve processes;
- d. An ability to design systems, components or process for broadly defined engineering technology problems appropriate to program education objectives;
- e. An ability to function effectively as a member or leader on a technical team;
- f. An ability to identify, analyze and solve broadly-defined engineering technical problems;
- g. An ability to apply written, oral and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- h. An understanding of the need for and an ability to engage in self-directed continuing professional development;
- i. An understanding of and a commitment to address professional and ethical responsibilities including a respect for diversity;
- j. A knowledge of the impact of engineering technology solutions in a societal and global context;
- k. A commitment to quality, timeliness and continuous improvement;

## **PROGRAM SPECIFIC REQUIREMENTS**

- a. Utilize techniques that are appropriate to administer and evaluate construction contracts, documents and codes;
- b. Estimate costs, estimate quantities and evaluate materials for construction projects;
- c. Utilize measuring methods, hardware and software that are appropriate for field, laboratory and office processes related to construction;
- d. Apply fundamental computational methods and elementary analytical techniques in sub-disciplines relates to construction engineering
- e. Produce and utilize design, construction and operations documents;
- f. Perform economic analyses and cost estimates, construction and maintenance of systems associated with construction engineering;

- g. Select appropriate construction materials and practices;
- h. Apply appropriate principles of construction management, law and ethics, and;
- i. Perform standard analysis and design in at least one sub-discipline related to construction engineering.