



Programme Description

Civil Engineering is primarily concerned with the design, construction and maintenance of works such as buildings, bridges, harbours, canals, railways, airports, dams, power projects, highways, water supply systems and sewage treatment works. Transportation systems, traffic engineering, hydraulic engineering including river training, materials engineering, environmental engineering, project management, construction planning and supervision, municipal or urban engineering and surveying are also important areas of civil engineering. This branch of engineering is therefore concerned with the provision of many of the basic services required for the development of modern society.

The BSc programme in Civil Engineering has been adopted from the UWI Faculty of Engineering at the St. Augustine Campus. It provides core competence in the essential engineering sub-disciplines and project management, and offers a wide choice of specialization within any of the five sub-disciplines in the final year of the programme. These sub-disciplines are highways, soils, structures, concrete and environment. Two coursework-based one-year courses are assigned at level two in structural design and civil engineering design. There is a capstone 1-year project during the final year, coupled with a special investigative project.

Admission Requirements

In addition to fulfilling general requirements for admission into the Faculty of Science and Technology, applicants must have passes in both units of Mathematics and Physics at CAPE or GCE Advanced level with no less than a Grade 3 or C; or passes in PHYS0410/P04A, PHYS0420/P04B, MATH0100/M08B and MATH0110/M08C with no less than a B; or equivalent qualification from a community college, CASE, UTECH or another university with minimum GPA of 3.

Career Opportunities

There are a number of technical specialties within the realm of Civil Engineering, these include:

- **Structural engineering** - creating the structural elements of design, whether for bridges, or skyscrapers. Probably the oldest single specialty in civil engineering, going all the way back to Pharaoh's pyramids.
- **Geotechnical engineering** - concerned with the rock and soil which supports the structures that other civil engineers design.
- **Environmental engineering** - designing systems for the treatment of chemical, biological and thermal wastes.
- **Materials engineering** - these are the experts on the various materials which other civil engineers use for their projects.
- **Water resources engineering** - concerned with the collection and management of water. Some of the earliest known civil engineers were the Roman engineers who created the aqueducts.
- **Earthquake engineering** - a specialty dealing with creating buildings and other structures which can withstand the stresses of earthquakes without failure.

- **Coastal engineering** - managing the coastal areas of our country, including marshlands. Coastal engineers create defenses against flooding and erosion.

