

EN6020

## Digital Devices and Systems



**Course Aim** To develop a detailed theoretical understanding of the characteristics, behaviour and operation of digital devices and systems and to acquire basic skills in the design and testing of digital electronics circuits.

**Short Title**

**Faculty** EDICT

**Credits** 15

**Pre-requisites** EN6000 (ENB5000) and EN6010 (ENB5010)

**Co-requisites** None

**Anti-requisites** None

**Version** 4

**Effective From** September 1, 2018

**NQF Level** 6

**Student Contact hrs** 90

**Self-directed hrs** 60

**Other directed hrs** 0

**Total learning hrs** 150

**Learning**

**Outcomes**

On successful completion of this course, students will be able to:

- 1 Demonstrate detailed knowledge in the application of Boolean Algebra to simplify logic circuits.
- 2 Apply detailed knowledge and basic skills in the design methodology used to solve combinational logic problems.
- 3 Apply detailed knowledge and basic skills in the design methodology used to design sequential logic circuits.
- 4 Demonstrate detailed knowledge in identifying elements of a hardware description language.

**NQF Sub-strand**

Theoretical  
Understanding  
Practical  
Application of  
knowledge  
Practical  
Application of  
knowledge  
Practical  
Application of  
knowledge