Course Aim: Introduce detailed theories, principles and concepts of common electrical/electronic components as applied to single phase and 3 phase alternating current (AC) circuits and to introduce basic practical design skills for AC circuit design.

Short Title: AC Circuit Theory
Faculty: EDICT
Credits: 15
Pre-requisites: EN6000 or ENB5000
Co-requisites: None
Anti-requisites: None

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

1. Apply detailed AC theories and principles to solve electrical problems related to AC circuit design and analysis.
2. Apply basic and some advanced practical skills to design and analyze single-phase and 3-phase AC circuits for well-defined engineering applications.
3. Use a range of measurement devices to analyze, simulate, test, measure and display electrical AC signals (voltages, currents and electrical power).

Version: 3
Effective From: February 1, 2016
Indicative NQF Level: 6
Student Contact hrs: 90
Self-directed hrs: 60
Other directed hrs: 0
Total learning hrs: 150

NQF Sub-strand:
Theoretical Understanding
Practical Application of knowledge
Practical Application of knowledge