

EN6080 Alternating Current (AC) Circuit theory



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

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

Learning Outcomes 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).

NQF Sub-strand

Theoretical Understanding

Practical Application of knowledge

Practical Application of knowledge