EN8030   Microcontrollers

Course Aim	To develop advanced embedded systems using a commercial microcontroller using the C++/C and Assembly programming languages.

Short Title		Version	2
Faculty	EDICT	Effective From	February 1, 2016
Polytechnic Level		Indicative NQF Level	8
Credits	15	Student Contact hrs	60
Pre-requisites	EN7030 (ENB6030) & EN7006 (ENB6006)	Self-directed hrs	90
Co-requisites	None	Other directed hrs	0
Anti-requisites	None	Total learning hrs	150

Learning Outcomes	On successful completion of this course, students will be able to:	NQF Sub-strand
	1 Programme a commercial microcontroller in an advanced embedded system using C/C++ and Assembly programming languages.	Practical Application of knowledge
	2 Programme a commercial microcontroller in an advanced embedded system to interface with a range of specialized electronic circuits using level and clocked interface.	Practical Application of knowledge
	3 Design, implement and critically analyze advanced algorithms to achieve specified outcomes for embedded systems.	Practical Application of knowledge
	4 Implement advanced programs which use features of operating systems to implement an advanced embedded system.	Practical Application of knowledge