MODULE **DESCRIPTOR**

MODULE TITLE	ELECTRICAL SERVICES		
MODULE CODE	EL3806 (L6)	**CREDIT VALUE**	10 CREDITS (5 ECTS)
CAMPUS	UCLAN CYPRUS		
SCHOOL	SCHOOL OF SCIENCE		

MODULE **AIMS**

The aim of this module is to enable students to develop a thorough understanding of the fundamental topics in the field of Electrical Services

MODULE **CONTENT**

Electrical Energy supply, and Electricity tariffs. Standby power supplies.

Switchgears and the design of electrical protection to industry safety standards and regulations
Principles of Electrical machines and Power electronics devices used in building services applications and the effect of their use in electrical distribution networks.

Lighting design: The human visual system, the nature and control of light, photometric units, lighting calculations, interior lighting design, day-lighting, lamps and luminaires and energy efficiency aspects of lighting systems

Single and three phase supplies and distribution to buildings.
Wiring regulations and Standards
Switchgears, fusegear, Circuit protection design, maximum demand estimation & Load assessment, earthling & Bonding, Power factor & harmonics.
Emergency and Standby Supply systems.

Cable and Cable sizing, Substation, Electrical and telephone installations and services for medium scale Projects.

INTENDED **LEARNING OUTCOMES**

On successful completion of this module a student will be able to:	
1.	Develop relevant knowledge and skills for the design of electrical protection according to industry safety standards and regulations.
2.	Critically discuss and apply principles of electrical machines and power electronics devices used in building services applications.
3.	Deploy knowledge and skills for lighting design.
4.	Clearly communicate and identify solutions regarding electrical and telephone installations and services for medium scale projects.

TEACHING **METHODS**

The class contact will consist of lectures, tutorials, and practical sessions. Lectures will introduce new material and provide examples. During the tutorials, students will apply lecture theory to solve related problems. Practical session will be used to familiarise students with laboratory equipment and develop their practical skills. Students will be able to use software tools for the design of electrical installation. Whenever possible, guest lecturers (industry professional and/or researchers) will deliver seminars to the students in which they will share their personal and professional experience.

ASSESSMENT **METHODS**

The module is assessed through In class-tests and a Portfolio - Practical assignments over several weeks (Laboratory work)