

Course Title	Electrical Installations I (Basic Principles)				
Course Code	ETECH 120				
Course Type	Compulsory				
Level	First Cycle				
Year / Semester	First Year / Spring				
Teacher's Name	Iakovos Yiakoumi				
ECTS	6	Lectures / week	1 ½	Laboratories / week	1 ½
Course Purpose and Objectives	<p>The main objectives of the course are to:</p> <ul style="list-style-type: none"> • Provide students the basic skills and abilities needed to organize a productive work environment • Introduce students to the basic tools and equipment commonly used in electrical installations • Provide basic knowledge on the types of electrical systems • Equip students with basic knowledge and practical experience on wiring different types of systems • Provide understanding on fault protection techniques • Introduce students to the techniques for inspection and testing of an installation 				
Learning Outcomes	<p>After completion of the course students are expected to:</p> <ul style="list-style-type: none"> • Know basic scientific concepts involved in electrotechnology • Have a basic knowledge on the types of electrical systems used in typical electrical installations • Know how to properly wire electrical systems for different applications • Perform fault protection techniques in single and three-phase electrical systems • Perform electrical installation at special locations • Know how to properly inspect and test an electrical installation 				
Prerequisites	None	Required	None	None	None
Course Content	<ul style="list-style-type: none"> • Basic electrotechnical units and theory • Basic scientific concepts in electrotechnology • Basic electrical units and cables • Tools and equipment • Alternating current and electrical machines • Polyphase or three-phase electrical systems • Overcurrent, short circuits and earth fault protection • Electricity supply systems • Electrical installations and wiring systems (for lighting, fire alarms, intruder alarms, closed circuit television, etc) • Electrical installation at special locations (e.g. bath, shower rooms, caravans, etc) • Inspection and testing techniques 				

Teaching Methodology	Lectures, in-class examples, exercises, practical.
Bibliography	<p><u>Compulsory</u></p> <ul style="list-style-type: none"> • Basic Electrical Installation Work (2011), Trevor Linsley, Newnes, ELSEVIER, 6th Edition, ISBN: 978 0 08 096628 1 • Lecturers notes.
Assessment	<p>Homework: 10%</p> <p>Participation: 10%</p> <p>Laboratory: 20%</p> <p>Mid Term: 20%</p> <p>Final Exam: 40%</p>
Language	Greek