هيئة تقويم التعليم والتدريب
Education & Training Evaluation Commission

T-104
2022

Course Specification

Course Title:	Electrical Systems and Layout
Course Code:	115 epet
Program:	Electrical Power Engineering Technology (EPET)
Department:	Electrical Engineering Technology (EET)
College:	College of Applied Industrial Technology (CAIT)
Institution:	Jazan University
Version:	T-104 - 2022
Last Revision Date:	20-04-2024

Table of Contents:

A. General Information about the Course

Course Identification								
1. Credit Hours: 3								
2. Course Type:								
a. University		College		Department	☑	Track		Others
b. Required	☑	Elective						
3. Level/year at which this course is offered:	5th Level		2nd Year					

4. Course General Description

THIS COURSE DEALS WITH WIRING ELETRICAL DEVICES AND CALCULATION OF POWER REQUIREMENTS.

5. Pre-requirements for this course (if any): 111 EPET

6. Co- requirements for this course (if any): -------

7. Course Main Objective(s):

Students should be able to learn in this course basics of ELECTRICAL WIRING SYMBOLS, WIRING METHODS AND POWER CALCULATIONS ETC. They should also be able to do wiring of electrical devices including house wiring.Case studies and numerical problem solving are included in the practical sessions.

1. **Teaching Mode: (Mark all that apply)**

No	Mode of Instruction	Contact Hours	Percentages
1	Traditional classrooms	22	50.0%
2	E-learning		0.0%
3	Hybride * Traditional classrooms * E-learning	22	50.0%
4	Distance learning		0.0%

2. **Contact Hours (based on the academic semester)**

No	Activity	Contact Hours
1	Lectures	22
2	Laboratory/Studio	22
3	Field	
4	Tutorial	
5	Others (specify)	
	Total	**44**

Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes (CLOs)	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	What are the basic concepts and definitions of Electrical Engineering	K1.1	Structured Lectures	Exams
2.0	**Skills**			
2.1	Estimate Power, Cable insulation	S1.1	Structured Lectures	Exams
2.2	Calculate parameters of Conduit and Fittings	S2.2	Worked Examples	Exams
2.3	Estimation of Power requirements using Parameters	S4.1	Worked Examples	Exams
3.0	**Values, autonomy, and responsibility**			
3.1	Work under pressure	V1.1	Collaborative Learning	Exams

C. Course Content

No	List of Topics	Contact Hours
1	BASIC CONCEPTS OF LAYOUT IN ELECTRICAL ENGINEERING	7
2	POWER ESTIMATION. CABLE SPECIFICATIONS.	5
3	PARAMETER OF CONDUITS	5
4	LAYOUT FITTINGS	5
5	STUDY OF TOOLS USED IN LAYOUT	10
6	STUDY ON DIFFERENT TYPES OF WIRES	5
7	WIRING PROJECT OF ELECTRICAL SWITCH	5
8	TROUBLESHOOTING A LAYOUT SYSTEM	2
	Total	**44**

D. Students Assessment Activities

No	Assessment Activities	Assessment Timing (In Week No)	Percentage of Total Assessment Score
1	HOMEWORK & CLASS ACTIVITI	Week 2	10%
2	MID TERM	Week 6	20%
3	LAB PERFORMANCE	Week 7	10%
4	LAB PRESENTATION	Week 3	10%
5	FINAL LAB EXAM	Week 9	20%
6	Final Exam	As Scheduled	30%

* Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

E. Learning Resources and Facilities

1 References and Learning Resources

Essential References	1	ELECTRICAL WIRING AND REPAIR BY MARTIN
Supportive References	1	DESIGNING ELECTRICAL SYSTEMS BY STALLCUP
Electronic Materials	1	
Other Learning Materials	1	

2 Required Facilities and Equipment

Items	Resources
Facilities (Classrooms, Laboratories, Exhibition rooms, Simulation Room, etc.)	Suitable number of chairs
Technology Equipment (Projector, Smart Board, Software)	Smart Board
Other Equipment (Depending on the nature of the specialty)	LAB EQUIPMENTS

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Method
Effectiveness of Teaching	Student	Indirect
	Course Coordinator	Direct
Quality of Learning Resources	Program Coordinator	Indirect
	Head of Department	Indirect
	Quality Auditor	Indirect
The extent to which CLOs have been achieved	Course Coordinator	Indirect
	Quality Auditor	Indirect
Other		

G. Specification Approval Data

Council/Committee	Electrical Engineering Technology (EET)
Reference Number	CAITEET23031
Date	03-09-2023