

**Faculty of Engineering & Technology**  
**Electrical Installations and Construction Equipment**

**Information :**

**Course Code :** EPR 344      **Level :** Undergraduate      **Course Hours :** 2.00- Hours

**Department :** Department of Structural Engineering & Construction Management

**Instructor Information :**

Title	Name	Office hours
Associate Professor	Tarek Abd ElBadee Boghdady Mahmoud	1
Teaching Assistant	Shahd Muhammed Anwer Muhammed Hamed	

**Area Of Study :**

By the end of the course the students will be able to:

- AIdentify the electric power system components.
- AAalyze the electric circuits.
- AIdentify the illuminations schemes.
- AAalyze electrical Installations.
- ACalculate the illuminations Intensity.
- ACalculate the electrical load in buildings.
- APlan and organize the electrical components in buildings.

**Description :**

Electrical installations: introduction to electric circuits, electrical installations in residential and industrial buildings (lighting, power, telephone, TV, air conditioning, lifts), Acoustic precautions, Alarm systems (Fire, Security, Gas), Electrical design for signaling systems in roads and railways, Electrical print reading. Construction equipments: assessment and selection of construction equipment, earth moving equipment, equipment of concrete production and handling, Steel installations equipment.

**Course outcomes :**

**a.Knowledge and Understanding: :**

1 -	a1- Explain the principals of electric power systems
2 -	a2- List the main items of construction tools

**b.Intellectual Skills: :**

1 -	b1- Design the elements of electric power systems
2 -	b2- Assess issues of electric circuits analysis
3 -	b3- Calculate the values of electrical loads

**c.Professional and Practical Skills: :**

1 -	c1- Draw neat details of electric power systems
2 -	c2- Prepare technical reports for electric circuits analysis

3 - c3- Draw neat details of layout of lighting & power

**d.General and Transferable Skills: :**

1 - d1- Work under stress

**Course Topic And Contents :**

Topic	No. of hours	Lecture	Tutorial / Practical
Electric power systems	8	4	4
Electric circuits analysis	12	6	6
electrical loads	8	4	4
construction tools	8	4	4
project layout of lighting & power	8	4	4
construction safety	12	6	6
Revision	4	2	2

**Teaching And Learning Methodologies :**

Interactive Lec.

Discussion

Problem Solving

**Course Assessment :**

Methods of assessment	Relative weight %	Week No	Assess What
1st mid term	15.00		
2nd mid term	15.00		
Assignments	5.00		
final exam	40.00		
Performance & Participation	10.00		
Quizzes	10.00		
Report	5.00		

**Course Notes :**

-Handout by the lecturer and by the MOODLE.

**Recommended books :**

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**Periodicals :**

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**Web Sites :**

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