

**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
Lecturer	Khaled Abdel Aty Mohamed Salah Eldin	1
Lecturer	Mohamed Rizk Mohamed Elsayed Hamouda	
Teaching Assistant	Ahmed Shawky Youssef Mohamed El Dkak	
Teaching Assistant	Abeer Tharwat Said Awad	2

**Area Of Study :**

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

- Identify the electric power system components.
- Analyze the electric circuits.
- Identify the illuminations schemes.
- Analyze electrical Installations.
- Calculate the illuminations Intensity.
- Calculate the electrical load in buildings.
- Plan 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 -	a2- List the main items of construction tools
2 -	a1- Explain the principals of electric power systems

**b. Intellectual Skills: :**

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

### c. Professional and Practical Skills: :

1 -	c3- Draw neat details of layout of lighting & power
2 -	c2- Prepare technical reports for electric circuits analysis
3 -	c1- Draw neat details of electric power systems

### d. General and Transferable Skills: :

1 -	d1- Work under stress
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### 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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