



## Course Specifications

Program(s) on which this course is given:	Electronics & Electrical Communications Engineering
Major or Minor element of programs:	Major
Department offering the program:	Electronics & Electrical Communications Engineering
Department offering the course:	Electrical Power and Machines
Academic year / Level:	Second
Date of original/modified specification approval:	2003/
Semester of course offering:	Second

## A- Basic Information

1.a. Title:	Electrical Power Engineering			1.b. Code:		EPM 217		
2. Units/Credit hours per week:	2.a. Lectures	3	2.b. Tutorial	1	2.c. Practical	0	2.d. Total	4

## B- Professional Information

1. Overall Aims of the Course:	To become familiar with: 1. AC and DC Distribution 2. Underground Cables 3. Transmission Line Performance 4. Three-phase symmetrical faults
2. Intended Learning Outcomes of Course (ILOs):	a) Knowledge and Understanding (1.1) 1. Explain the basics of AC and DC Distribution. 2. Explain the basics of underground cables. 3. Explain the basics of transmission line performance. 4. Explain the basics of the Per-unit system. 5. Explain the basics of Three-phase symmetrical faults.
	b) Intellectual Skills
	c) Professional and Practical Skills
	d) General and Transferable Skills

## 3. Contents

Topic	Total hours	Lectures	Tutorial/ Practical
AC and DC Distribution	14	7	7
Underground Cables	14	7	7
Transmission Line Performance	10	5	5
Per-unit system	7	4	3
Three-phase symmetrical faults	11	6	5

4. Teaching and Learning Methods	Lectures (Y)	Practical Training/ Laboratory (N)	Seminar/Workshop (N)
	Class Activity (Y)	Case Study (Y)	Projects (N)
	E-learning (N)	Assignments /Homework (N)	Other:
5. Student Assessment Methods			
5.a. Method		To assess (with reference to the ILOs)	
• Mid-Term exams		a1 – a5	
• Final Exam		a1 – a5	
5.b. Assessment Schedule		Week	
• Mid-Term exam		8	
• Final Exam		15	
5.c. Weighting of Assessments			
• Mid-Term exams		30%	
• Final Exam		70%	
• Total		100%	
6. List of References			
6.a. Course Notes: Course notes developed by the course coordinator and his group			
6.b. Essential Books (Text Books): N/A.			
6.c. Recommended Books:			
<ul style="list-style-type: none"><li>• Electric Circuits by James W. Nilsson</li><li>• Electric Power Transmission and Distribution by P. J. Freeman</li><li>• Low Voltage Wiring By Terry Kennedy</li><li>• Electrical Installations Handbook by Gunter G. Seip</li></ul>			
6.d. Periodicals, Web Sites, ... etc: IEE Wiring Regulations			
7. Facilities Required for Teaching and Learning			
<ul style="list-style-type: none"><li>• Data Show, Screen, new references in library</li></ul>			
Course Coordinator:	Dr. Adel Shaltout		
Head of Department:			
Date:			