

EE238 Electrical Engineering Fundamentals

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laborator y	
BA124	2	3	2	2	2	3

COURSE AIM

To study the basic circuit. To study the circuit theorems and investigate the laws of magnetic force.

COURSE WEEKLY CONTENTS

- 1 Introduction.
- 2 Basic circuits.
- 3 Resistance, voltage, current, and ohm’s law.
- 4 Kirchoff’s laws.
- 5 Resistances in series and parallel.
- 6 Mesh analysis.
- 7 Node analysis. + Midterm Exam
- 8 Source transformation.
- 9 Superposition, voltage and current divider.
- 10 Laws of magnetic force.
- 11 Field strength, flux density.
- 12 Relation between B, H, I and K. + 12th week assessment.
- 13 Alternating current.
- 14 Waves, effective value.
- 15 Power.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	←	10	MARKS		→	30
To be freely distributed among possible assessments							
8 to 12	←		20	MARKS		→	20
13 to 15	←		10	MARKS		→	10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook Textbook B.L.Theraja,,”Fundamental Of Electrical Engineering & Electronics S.Chand.

Other A. B Carlson, “Circuits, Engineering Concepts and Analysis of Linear Electric Circuits”, John Wiley, 2000
 R.L. Boylestad, “Introductory Circuit Analysis”, Merril, London, 1994.
 W. J. Hayt and J. E. Kemmerly, “Engineering Circuit Analysis”, McGraw Hill Int. 9th Edition