

**EC341 Electromagnetics**

**COURSE INFORMATION**

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
BA 114 BA224	5	10	2	2	0	3

**COURSE AIM**

The course aims at introducing the student to the basic concepts of electromagnetisms.

**COURSE WEEKLY CONTENTS**

- 1 Review of vector analysis.
- 2 Electromagnetic fields :coulombs law.
- 3 Gauss's Law
- 4 Electric potential conductors and semi conductors
- 5 Dielectric and capacitance
- 6 Polarization
- 7 7th week evaluation.
- 8 Magnetic field and flux density
- 9 Bioat savart 's law
- 10 Ampere 's Law
- 11 Magnetic potential
- 12 12th week evaluation
- 13 Maxwell's equation and magnetic vectors
- 14 Boundary conditions
- 15 Displacment vector and Telephone lines

**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

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**Textbook** Hayat book 4<sup>th</sup> edition

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**Other**