



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING, (AUTONOMOUS)

L.B.Reddy Nagar, Mylavaram – 521 230. Andhra Pradesh, INDIA

Approved by AICTE New Delhi

Accredited by NBA, NAAC 'A' Grade, New Delhi & Certified by ISO 9001:2008

FRESHMAN ENGINEERING DEPARTMENT

Assessment of COURSE OUTCOMES Batch: (2014-15)

Faculty Name	: N.Aruna Asst. Prof.	Code	: S238
Subject Name	: Engineering Physics	Semester	: I
Year	: I	Programme	: EIE
Degree	: B.Tech		

COURSE OUTCOMES:

After the completion of the course, students should be able to

CO1	Identify the nature of Interference, Diffraction and Polarization.
CO2	Analyze the dual nature of particle and significance of the wave function .
CO3	Identify the principle of LASER and Optical fibers, types of lasers and their applications.
CO4	Analyze the different types of magnetic materials and their uses.
CO5	Apply the phenomenon of superconductivity on different materials.

Assessment of Course Outcomes

CO1	Identify the nature of Interference, Diffraction and Polarization.
Delivery Methods	BB for mathematical orientation, Tutorials
Assessment Methods	Continuous Internal Examination, Semester End examination
Sample Questions	I mid exam 1.Explain the birefringence observed by calcite crystals and describe the nature of O-ray and E-rays. 2.Derive an expression for resolving power of grating. 3.Explain the phenomenon of interference observed in reflected light from thin films. Obtain the condition for maxima and minima.
CO2	Analyze the dual nature of particle and significance of the wave function .
Delivery Methods	BB for mathematical orientation, Tutorials
Sample Questions	I mid exam 1. Discuss the De-Broglie hypothesis of duality of matter particles. 2. Derive time independent Schrodinger's wave equation for a free particle. 3. Show that the energies of a particle in a potential box are quantized.
CO3	Identify the principle of LASER and Optical fibers, types of lasers and their

	applications.
Delivery Methods	BB for mathematical orientation, Tutorials
Assessment Methods	Mid exams, End exams
Sample Questions	II mid exam <ol style="list-style-type: none"> 1. Obtain the relations between Einstein coefficients. 2. With the help of suitable diagrams, explain the principle, construction and working of a Helium-Neon gas laser. 3. Explain the characteristics of Laser?
CO4	Analyze the different types of magnetic materials and their uses.
Delivery Methods	BB for mathematical orientation, Tutorials
Sample Questions	II mid exam <ol style="list-style-type: none"> 1. Define the terms permeability(μ), susceptibility(χ), magnetic induction (B), magnetic field(H), and magnetization(M) . 2. Define magnetic moment. Explain the origin of magnetic moment at the atomic level. What is a Bohr magneton? 3. What is Ferro magnetism? Explain the hysteresis curve on the basis of domains.
CO5	Apply the phenomenon of superconductivity on different materials.
Delivery Methods	BB for mathematical orientation, Tutorials
Sample Questions	II mid exam <ol style="list-style-type: none"> 1. Is the external current changes the behaviour of superconductor? Explain. 2. Prove that superconductors are perfectly diamagnetic. 3. Explain Josephson effect of superconductivity.

Analysis of ENGINEERING PHYSICS marks :

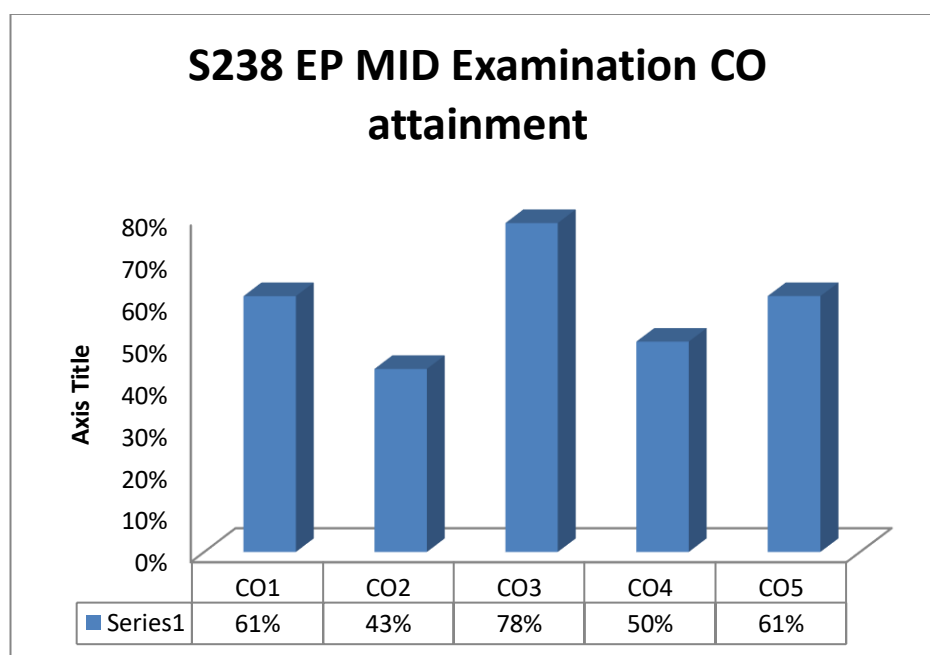


Fig.1 Representation of CO percentage in mid examination

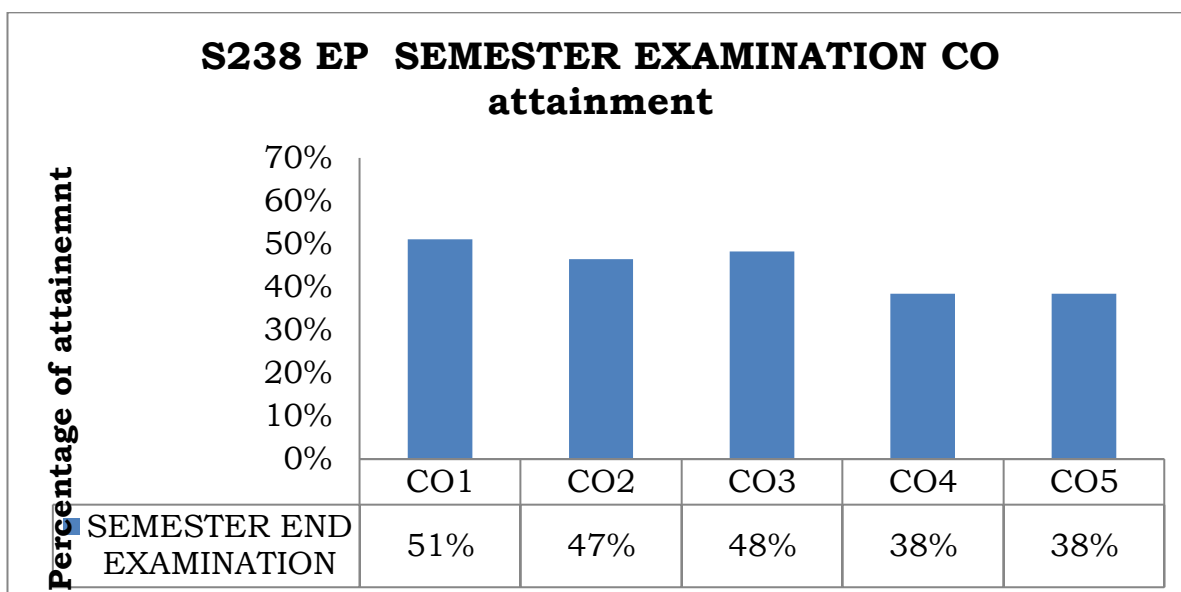


Fig.2 Representation of CO percentage in semester end examination

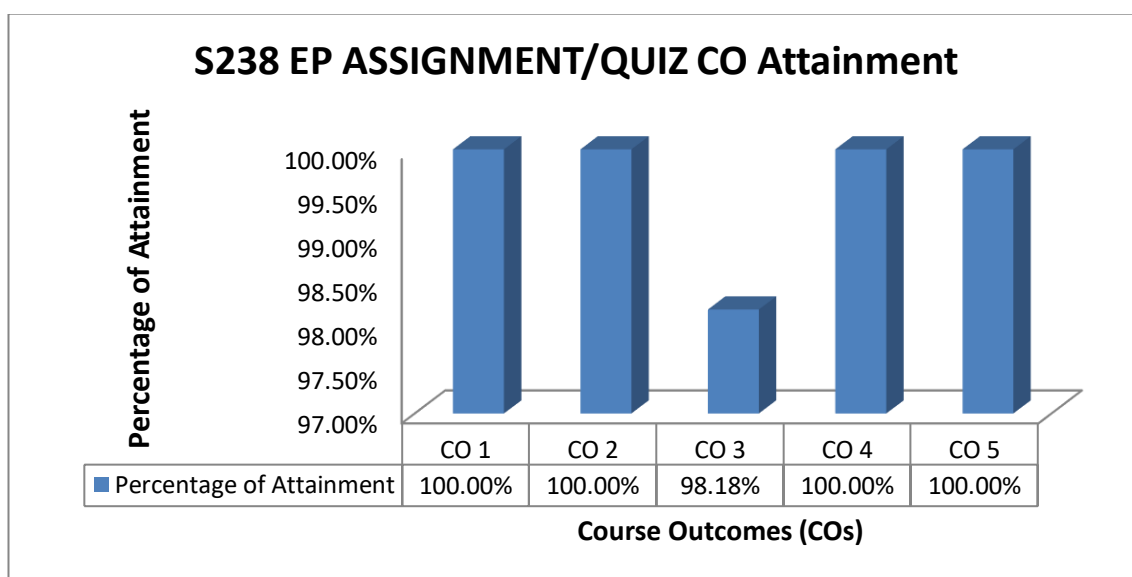
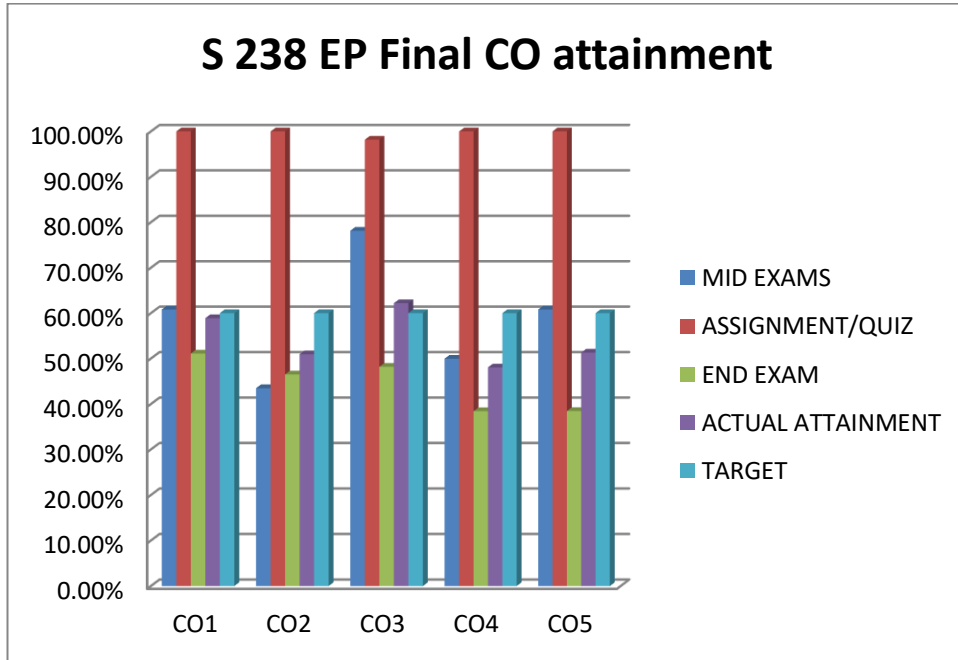


Fig.3 Representation of CO percentage in Assignment/quiz

CO s	MID EXAMS	ASSIGNMENT/QUIZ	END EXAM	ACTUAL ATTAINMENT	TARGET
CO1	60.79%	100.00%	51.11%	58.90%	60%
CO2	43.49%	100.00%	46.52%	50.96%	60%
CO3	78.15%	98.18%	48.20%	62.19%	60%
CO4	49.98%	100.00%	38.43%	48.05%	60%

CO5	60.80%	100.00%	38.45%	51.31%	60%
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R14	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012
CO1	3	3		2								3
CO2	3	3		2								3
CO3	3	3	2	2	2							3
CO4	3	3	3	2	2							3
CO5	3	3		2	1							3
Attainment	54%	54%	54%	54%	54%							54%

ACTION TAKEN REPORT FOR THE COURSE ENGINEERING PHYSICS OF EIE DEPT

The department has analyzed the results of EP along with CO attainment and POs for each course during the academic year 2014 – 2015 Sem-I. The following are the actions/suggestions made by the Academic Committee (DAC) and the Program Assessment Committee (PAC).

S. No	Name of the course	Branch	COs	Pass (%)	Contributing POs	Actions/Suggestions
			<60 %			
1.	Engineering Physics	EIE	CO1, CO2, CO4, CO5	69.09	1,2,3,4,5,12	<ol style="list-style-type: none">1. Advised to create awareness on the course outcomes of the subject.2. Counsel the failed students.3. More problems are to be practiced on CO1, CO2, CO4 & CO54. It is advised to use the power point presentation for CO1, CO2, CO4 & CO5 to inspire students