



# BRILLIANT INSTITUTE OF ENGINEERING AND TECHNOLOGY

Approved By AICTE, New Delhi, Affiliated to JNTU-H  
Abdullapur (V), Abdullapurmet (M), R.R. Dist., Hyderabad, Telangana – 501 505

## Department of Humanities & Sciences (H&S)

### Subject: English

#### Course Outcomes:

After completion of the course, students will be able to:

1. Use English considerably well in written and spoken.
2. Enrich language accurately and fluently.
3. Employ extensive and intensive reading skills
4. Gain confidence in using English language and skills for writing in real life situations.
5. Use standard grammar, punctuation, and spelling in documents.

CO- PO, PSO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
COS	Program Outcomes (POs)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1								2	2	3		
CO2										3	2	
CO3		1	1									
CO4							1	2		2		2
CO5		1	2				1			2		



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## ENGINEERING MATHEMATICS-I

### Course Outcomes:

At the end of the course, students will be able to

1. Write the matrix representation of a set of linear equations and to analyse the solution of the system of equations
2. Find the Eigen values and Eigen vectors and reduce the quadratic form to canonical form using orthogonal transformations.
3. Analyse the nature of sequence and series.
4. Determine Fourier series for different functions
5. Solve the applications on the mean value theorems and evaluate the improper integrals using Beta and Gamma functions

CO- PO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
COS	Program Outcomes (POs)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	3				2			3
CO2	3	2	2	3	2				2			3
CO3	3	2	2	3	2				2			2
CO4	3	2	2	3	3				2			2
CO5	3	2	2	3	3				2			2







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## ENGLISH LANGUAGE LAB

### Course Outcomes:

After completion of the course, students will be able to:

1. Understand the nuances of language through audio- visual experience and group activities
2. Neutralize the accent for intelligibility
3. Realize the importance of listening skills and speaking skills and their application in real life situations.
4. Recognize significance of non-verbal communication and develop confidence to face audience and shed inhibitions.
5. Speak with clarity and confidence thereby enhance employability skills of the students.

CO- PO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
COS	Program Outcomes (POs)											
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1		1				1		1	2	2		1
CO2										1		1
CO3							1		1	2		2
CO4								1	1	2		2
CO5										2		2





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## PROGRAMMING FOR PROBLEM SOLVING LAB

### Course Outcomes:

At the end of the course, students will be able to

1. Analyse concepts in problem solving do programming in C language and write diversified solutions using C language.
2. Identify situations where computational methods and computers would be useful.
3. Understand the programming tasks using techniques learned and write pseudo-code.
4. Compare the program on a computer, edit, compile, debug, correct, recompile and run it.
5. Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

CO- PO, PSO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak															
COS	Program Outcomes (POs)												PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O 1	PS O 2	PS O 3
CO1		2	3	2									3	2	
CO2			3		2								2	3	
CO3		2	2		2									2	
CO4			3		3								2	3	
CO5		2	2		3								3	2	



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## ENGINEERING WORKSHOP

### Course Outcomes:

At the end of the course, students will be able to

1. Knowledge of carpentry process and methods used in the design and fabrication, installation, maintenance and repair of structures and fixtures (e.g., furniture, cabinets) to accomplish work assignments.
2. Assembling together of part and removing metals to secure the necessary joint by using fitting and welding.
3. Understand the hardware components of house wiring.
4. Understand the manufacturing process using machine shop.
5. Analyse the different types of computer Peripherals

CO- PO, PSO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak															
COS	Program Outcomes (POs)												PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3				2	2	1		3			3			
CO2	3				2	2	1		3			3			
CO3	3				2	2	1		3			3			
CO4	3				2	2	1		3			3			
CO5	3				2	2	1		3			3			





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## ENGINEERING MATHEMATICS-II

### Course Outcomes:

After learning the contents of this paper, the student must be able to

1. Identify whether the given differential equation of first order is exact or not
2. Solve higher differential equation and apply the concept of differential equation to real world problems
3. Determine extreme values of a function
4. Evaluate the multiple integrals and apply the concept to find areas, volumes.
5. Evaluate the line, surface and volume integrals and converting them from one to another.

CO- PO, PSO Mapping															
(3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak															
COS	Program Outcomes (POs)												PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	3	3	2	2			2	2		3		2	
CO2	3	3	3	3	2	2			2			3		2	
CO3	3	3	3	3	2	2			2	2		3		2	
CO4	3	3	3	3	3				2			3		2	
CO5	3	3	3	3	2	3			2	2		3		2	



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## ENGINEERING CHEMISTRY

(Common for EEE, ECE, CSE, and IT)

### Course Outcomes:

After completion of the course students will be able to:

1. Understand water treatment, specifically hardness of water and purification of water by various methods.
2. Acquire knowledge on electrochemical cells, fuel cells, batteries and their applications.
3. Analyse microscopic chemistry in terms of atomic and molecular orbital's splitting and band theory related to conductivity.
4. Acquire basic knowledge on the concepts of stereochemistry.
5. Acquire basic knowledge on chemical reaction mechanisms and that are used in the synthesis of molecules.

CO- PO Mapping												
(3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
COS	Program Outcomes (POs)											
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	3	3	1	3	1	2						
CO2	3	2	1	1								
CO3	3	3	1	3	1	2	1	1	1			
CO4	1		1		1	1		1				
CO5	3	3	3	2	2	1	1		1			



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## BASIC ELECTRICAL AND ELECTRONICS ENGINEERING

### Course Outcomes:

**At the end of the course, students should be able to**

1. Apply basic laws in electrical circuit.
2. Analyse the single-phase circuits
3. Comprehend the construction and Operation of DC and AC machines
4. Know the practical importance of Diode and its characteristics
5. Recognize the construction and operation of BJT and JFET

<b>CO- PO, PSO Mapping</b> (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak															
COS	Program Outcomes (POs)												PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	3									3			
CO2	3	3	3									3			
CO3	3	3	3									3			
CO4	3	3	3									3			
CO5	3	3	3									3			





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## ENGINEERING GRAPHICS

(Common for EEE, ECE, CSE, and IT )

### Course Outcomes:

At the end of the course students will be able to

1. Understand the basics of drawings and importance of curves.
2. Draw the projection of lines and planes.
3. Draw the projection of solids and section of solids.
4. Produce development of surface and isometric projections.
5. Convert orthographic views to isometric views and vice-versa.

<b>CO- PO Mapping</b> (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
<b>COS</b>	<b>Program Outcomes (POs)</b>											
	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
<b>CO1</b>	3		1							3		3
<b>CO2</b>	3		1							3		3
<b>CO3</b>	3		1							3		3
<b>CO4</b>	3		1							3		3
<b>CO5</b>	3		1							3		3





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## BASIC ELECTRICAL AND ELECTRONICS ENGINEERING LAB

(Common for EEE, ECE, CSE, and IT )

### Course Outcomes:

At the end of the course, students will be able to

1. Analyse electrical circuits by applying basic laws
2. Analyse the performance of DC Motor, three phase Induction motor and transformer
3. Understand V-I Characteristics of various diodes
4. Design Different Rectifier Circuits
5. Differentiate the Transistors and their Operations

CO- PO, PSO Mapping															
(3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak															
COS	Program Outcomes (POs)												PSOs		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CO1	3	3	3	3					3			3			
CO2	3	3	3	3					3			3			
CO3	3	3	3	3					3			3			
CO4	3	3	3	3					3			3			
CO5	3	3	3	3					3			3			







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## ENGINEERING GRAPHICS LAB

(Common for EEE, ECE, CSE, and IT)

### Course Outcomes:

At the end of the course students will be able to

1. Draft basic drawings elements.
2. Draw the projection of points, lines and planes on Cartesian coordinates using drafting software.
3. Draw the projection solids on Cartesian coordinates using drafting software.
4. Develop surfaces of regular solids, sectional solids and solids inclined to one axis using drafting software.
5. Convert and develop the isometric views on to orthographic projections using drafting software.

CO- PO Mapping (3/2/1 indicates strength of correlation) 3-Strong, 2-Medium, 1-Weak												
COS	Program Outcomes (POs)											
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	3		1		3				2	3		2
CO2	3		1		3				2	3		2
CO3	3		1		3				2	3		2
CO4	3		1		3				2	3		2
CO5	3		1		3				2	3		2