SREE VENKATESWARA COLLEGE OF ENGINEERING

An ISO 9001:: 2015 Certified Institution

(Approved by AICTE, New Delhi and Affiliated to

JNTU,Anantapur)Northrajupalem (Vi), Kodavaluru(M) , S.P.S.R

Nellore (Dt)-524316

DEPARTMENT OF HUMANITIES & SCIENCES

R15 Regulation　　　　　　　　　　　　**Course Outcomes (COs)**

I B. Tech - I Semester (EEE)

S.No	Subject Name	Subject Code		Course Outcomes
1	**Functional English**	**15A52101**	**C111.1**	Describe the communication and writing skills in general communication. (BL-2)
			C111.2	Develop the writing and life skills in structural manner of real time scenarios. (BL-3)
			C111.3	Apply the knowledge of writing and speaking skills to enhance the career opportunities. (BL-3)
			C111.4	Illustrate the concepts of writing and speaking skills to develop the skills in job opportunities.(BL - 2)
			C111.5	Analyze the concepts of various real time scenarios to represent in an effective model. (BL - 4)
2	**Mathematics - I**	**15A54101**	**C112.1**	Analyze the ordinary differential equations to provide solutions of various engineering applications.(BL-4)
			C112.2	Apply the mathematical knowledge of higher order differential equations to solve various engineering problems. (BL-3)
			C112.3	Describe the knowledge of Mean Value theorems, functions of several variables and Radius of Curvature for engineering applications.(BL-2)
			C112.4	Evaluate the Multiple integrals to determine areas and volumes of engineering applications. (BL-5)
			C112.5	Apply the techniques of vector calculus to solve various engineering problems.(BL-3)
3	**Computer Programming**	**15A05101**	**C113.1**	Describe computer programming concepts to solve a problem. (BL -2)
			C113.2	Choose appropriate control structure to solve the real world problems.(BL-3)
			C113.3	Apply the knowledge of pointers for dynamic memory management of an application.(BL-3)
			C113.4	Apply the concepts of Arrays, pointers and structures to develop programs.(BL-3)
			C113.5	Demonstrate the knowledge of Files to organize the data in a disk.(BL- 2)
4	**Engineering Physics**	**15A56101**	**C114.1**	Describe the concepts of physical optics, lasers and fibre optics in various engineering applications. (BL-2)
			C114.2	Illustrate the X-Ray diffraction techniques for determination of crystal structures & production and detection of ultrasonic waves for non-destructive testing of materials. (BL-2)
			C114.3	Analyze the knowledge of basic quantum mechanics and free electron theory of metals to describe the properties of metals. (BL-4)
			C114.4	Demonstrate the physics of semiconductors for electronic devices & properties of various magnetic materials for engineering applications. (BL-3)
			C114.5	Illustrate the concepts of super conducting materials and nano-materials for scientific and engineering applications. (BL-2)
5	**Engineering Drawing**	**15A03101**	**C115.1**	Demonstrate the Principles of Engineering Drawing, BIS conventions and importance of various curves in engineering for solving engineering problems. (BL-2)
			C115.2	Apply the concepts of Engineering scales for drawingview of projection points of a problem. (BL-3)

			C115.3	Analyze the procedure of projection of lines and regular plane surfaces for development of engineering models.(BL-4)
			C115.4	Construct the development of surfaces by understanding the projection of solids concept. (BL-3)
			C115.5	Demonstrate the strategies of projections and visualization skills for conversion of Isometric views into orthographic projections. (BL-2)
6	**English Language Communication Skills Lab**	15A52102	C116.1	Apply knowledge in seeking right pronunciation with better accent through stress, intonation and rhythm.(BL-3)
			C116.2	Develop speaking skills and active participation in the learning process and become expertise lifelong learning Skills.(BL-3)
			C116.3	Demonstrate the learning skills through participate in Group Discussions, Debates, placement Interviews and in Public Speaking. (BL-3)
7	**Engineering Physics Lab**	15A56102	C117.1	Identify the importance of optical phenomenon like Interference and diffraction and illustrate he knowledge about diffraction phenomenon and applications of lasers. (BL-3)
			C117.2	Apply practical application knowledge of optical fiber and lasers by the study of their relative parameters. (BL-3)
			C117.3	Apply the knowledge of semiconductor and magnetic materials in day to day science applications. (BL-3)
8	**Computer Programming Lab**	15A05102	C118.1	Design programs by selecting the right identifiers, data types & operators, control statements, arrays andstrings for effective Computation. (BL-3)
			C118.2	Develop the solution of a given problem by applying functions, pointers, structures &unions.(BL-3)
			C118.3	Develop the solution of a given problem through files and Debug erroneous programs related to the problem.(BL-3)

I B. Tech - II Semester (EEE)

S.No	Subject Name	Subject Code		Course Outcomes
1	**Mathematics - I**	15A54201	C121.1	Analyze the techniques of Laplace transforms and determine the solutions of ODE in engineering problems. (BL-4)
			C121.2	Describe the mathematical knowledge of Fourier Series to solve various engineering problems.(BL-2)
			C121.3	Illustrate the concepts of Fourier transforms to solve various engineering problems. (BL-2)
			C121.4	Apply the Partial differential equations to generate mathematical models for engineering applications. (BL-3)
			C121.5	Apply the techniques of Z-Transforms to solve difference equations in engineering applications. (BL-3)
2	**English for Professional Communication**	15A52201	C122.1	Demonstrate listening, reading and writing skills of communication in general and obtain general awareness in science. (BL-2)
			C122.2	Develop the oral communication skills in real life scenarios. (BL-3)
			C122.3	Illustrate the life and presentational skills for competitive opportunities. (BL-2)
			C122.4	Apply the life skills to deliver presentation effectively in placements.(BL - 3)
			C122.5	Develop employability skills to enhance career opportunities. (BL - 2)
3	**Engineering Chemistry**	15A51101	C123.1	Describe the various water treatment techniques used for the softening and purification of water in industrial applications. (BL-2)
			C123.2	Demonstrate the various preparation mechanisms of different polymers in engineering applications.(BL-2)
			C123.3	Apply the concepts of electro chemistry and knowledge of protection of metals in engineering and scientific applications. (BL-3)
			C123.4	Analyze the fuels and their synthesis to understand working of Internal Combustion and Diesel engines.(BL-4)

			C123.5	Demonstrate the concepts of cement, refractories, lubricants & carbon clusters in various engineering applications. (BL-3)
4	**Environmental Studies**	**15A01101**	**C124.1**	Describe the knowledge of natural resources and their importance in our daily life to develop & apply various water conservation methods of natural resources. (BL-2)
			C124.2	Illustrate the importance of ecosystem and its functions in environmental education for protection of life cycles of various bio systems which are essential for biosphere. (BL-2)
			C124.3	Demonstrate the knowledge of different types of pollutions and their control & impact on global environment which may affect the human health. (BL-2)
			C124.4	Identify the various environmental impacts and the importance of various acts and policies towards environmental sustainability. (BL-3)
			C124.5	Analyze the effects of increasing human population as well as health associated problems and learns measures to be taken to protect human health. (BL-4)
5	**Electrical Circuits -I**	**15A02201**	**C125.1**	Summarize the basic characteristics of R,L,C parameters and analysis of Network reduction techniques-star to delta and delta to star transformations (BL-3)
			C125.2	Analyze the concepts of real power, reactive power, complex power, phase angle and phase difference (BL-3)
			C125.3	Analyze Series and parallel resonances, bandwidth, current locus diagrams (BL-3)
			C125.4	Analyze Network theorems and application (BL-3)
			C125.5	Computaional Analysis of two port network parameters (BL-3)
6	**Engineering Chemistry Laboratory**	**15A51102**	**C126.1**	Develop skills in determining the effects of hard water and also importance of knowing effects of presence of excess oxygen, acids and bases in water.(BL-3)
			C126.2	Demonstrate the practical knowledge about flow of lubricant with varying temperatures.(BL-2)
			C126.3	Analyze the amount of iron &manganese through different techniques and applying the knowledge in control of corrosion. (BL-4)
7	**Electrical Circuits Laboratory**	**15A02202**	**C127.1**	Apply suitable theorems for circuit analysis and verify the results theoretically. (BL-3)
			C127.2	Determine experimentally the two port network parameters and verify the results theoretically.(BL-2)
			C127.3	Determine the active and reactive powers experimentally and verify the results theoretically.(BL-2)
8	**Engineering & IT Workshop**	**15A99201**	**C128.1**	Design and development of sheet metal objects by surface development and join the metals for obtaining desired shape.(BL-3)
			C128.2	Build a Personal Computer and Install operating systems and prepare the computer ready to use.(BL-3)
			C128.3	Develop presentation and documentation of a given tasks through Microsoft Windows and access the Internet & test Interconnect two or more computers for information sharing.(BL-3)