Vidya Jyothi Institute of Technology

Department of Humanities & Sciences (ECE)

<u>I Year I Semester – R22</u>

Course outcomes

Course Name: Mathematics-I/ A221001

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|-------------------------------------------------------------------------------------------------------------|--|
| СО | Write the matrix representation of system of linear equations and identify the consistency of the system of | |
| 1 | equations. | |
| СО | Find the Eigen values and Eigen vectors of the matrix and discuss the nature of the quadratic form. | |
| 2 | | |
| СО | Analyze the convergence of sequence and series. | |
| 3 | | |
| СО | Discuss the applications of mean value theorems to the mathematical problems, Evaluation of improper | |
| 4 | integrals using Beta and Gamma functions. | |
| СО | Examine the extrima of functions of two variables with/ without constraints. | |
| 5 | | |

Course Name: Applied Physics/ A221002

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------------|--|
| СО | Understand various optical phenomena of light. | |
| 1 | | |
| СО | Apply the basic principles of quantum mechanics to classify solids based on the band theory. | |
| 2 | | |
| СО | Elucidate the characteristics of semi conductors and semi conductor devices. | |
| 3 | | |

| СО | Apply the knowledge of nanotechnology for societal applications. |
|----|------------------------------------------------------------------|
| 4 | |
| | |
| СО | Explain the working principle of lasers and optical fibers. |
| 5 | |
| | |

Course Name: Applied Physics Lab/ A221081

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|-------------------------------------------------------------------------------------------|--|
| СО | Apply optical phenomena to characterize optical sources and components. | |
| 1 | | |
| со | Characterize semiconductors and semiconductor devices. | |
| 2 | | |
| СО | Study transient response of RC circuit and resonance mechanisms in mechanical and | |
| 3 | electrical systems. | |
| со | Collect data and evaluate the outcomes of an experiment quantitatively and qualitatively. | |
| 4 | | |
| со | Carryout experimental data analysis. | |
| 5 | | |

Course Name: English for Skill Enhancement / A221003

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------|--|
| СО | Understand the importance of vocabulary and sentence structures. | |
| 1 | | |
| | | |
| СО | Choose appropriate vocabulary and sentence structures for oral and written | |
| 2 | communication. | |
| СО | Demonstrate understanding of the rules of functional grammar. | |
| 3 | | |

| CO 4 | Develop comprehension skills from the known and unknown passages through effective reading strategies. |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| CO 5 | Construct paragraphs, letters, essays, abstracts, précis and reports in various contexts thereby improving proficiency in writing modules of English. |

Course Name: English Language & Communication Skills Lab / A221082

| After completing this course the student must demonstrate the knowledge and ability to | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| CO 1 | Reproduce speech sounds and improve language |
| CO 2 | Develop accent and pronunciation in various situations |
| CO 3 | Understand variants in pronunciation by differentiating between British and American accents |
| CO 4 | Identify the diverse purposes of listening and speaking |
| CO 5 | Exhibit critical thinking, problem-solving and decision-making skills through Group Discussions |

Course Name: C Programming for Engineers / A221501

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------|--|
| со | Design Algorithms and Flowcharts for real world applications. | |
| 1 | | |
| со | Know various operators and decision statements for program development. | |
| 2 | | |
| СО | Design programs involving iteration statements and code reusability using Functions. | |
| 3 | | |
| со | Develop programs using arrays and identify various string handling functions. | |
| 4 | | |
| со | Analyse various searching and sorting techniques. | |
| 5 | | |

Course Name: C Programming for Engineers Lab / A221581

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------|--|
| СО | Design Algorithms and Flowcharts for real world applications. | |
| 1 | | |
| со | Know various operators and decision statements for program development. | |
| 2 | | |
| со | Design programs involving iteration statements and code reusability using Functions. | |
| 3 | | |
| СО | Develop programs using arrays and identify various string handling functions. | |
| 4 | | |
| со | Analyse various searching and sorting techniques. | |
| 5 | | |

Course Name: Elements of Electronics & Communication Engineering / A221401

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------|--|
| СО | Identify Different components used for electronics application. | |
| 1 | | |
| СО | Measure the different parameter using various measuring instruments | |
| 2 | | |
| СО | Distinguish various signal used for analog and digital communication | |
| 3 | | |
| СО | Identify the pin configuration of IC's | |
| 4 | | |
| СО | Acquire knowledge in various software's of ECE | |
| 5 | | |

Course Name: Engineering Workshop / A221381

| After | After completing this course the student must demonstrate the knowledge and ability to | |
|-------|----------------------------------------------------------------------------------------|--|
| СО | Understanding the tools and methods of using to fabricate engineering Components. | |
| 1 | | |
| СО | Applying the measuring techniques to verify the dimensional accuracy. | |
| 2 | | |
| СО | Evaluating various methods and trades of workshop in the component building. | |
| 3 | | |

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