Vidya Jyothi Institute of Technology

Department of Humanities & Sciences (IT)

I Year I Semester – R22

Course outcomes

Course Name: Mathematics-I/ A221001

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

Course Name**: Applied Physics/ A221002**

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

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

Course Name**: Applied Physics Lab/ A221081**

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

Course Name**: English for Skill Enhancement / A221003**

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

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: Programming for Problem Solving / A221502

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Write algorithms and to draw flowcharts for solving problems.
CO 2	CO2: To understand the usage of control statements, arrays and strings.
CO 3	CO3: Develop programs with user defined data types and pointers.
CO 4	CO4: To decompose a problem into functions and to develop modular reusable code.

CO 5	CO5: Analyze various Searching and sorting problems.

Course Name: Programming for Problem Solving Lab / A221582

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Apply the syntax rules for numerical constants ,variables and data types.
CO 2	Design programs on control statements, Arrays and Strings.
CO 3	Develop applications on user defined data types.
CO 4	Develop programs on code reusability using functions.
CO 4	Implement various searching and sorting techniques using arrays.

Course Name: Elements of Computer Science & Engineering / A221503

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Know the working principles of functional units of a basic Computer
CO 2	Understand program development, the use of data structures and algorithms in problem solving.
CO 3	Know the need and types of operating system, database systems.
CO 4	Understand the significance of networks, internet, WWW and cyber security.
CO 5	Understand Autonomous systems, the application of artificial intelligence.

Course Name**: Engineering Workshop / A221381**

	After completing this course the student must demonstrate the knowledge and ability to
CO1	Understanding the tools and methods of using to fabricate engineering Components.
CO2	Applying the measuring techniques to verify the dimensional accuracy.
CO3	Evaluating various methods and trades of workshop in the component building.

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