Vidya Jyothi Institute of Technology

Department of Humanities & Sciences (ME)

I Year II Semester – R22

Course Outcomes

Course Name: Mathematics-II/ A222005

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Classify the various types of differential equations of first order and first degree and apply the concepts of differential equations to the real world problems.
CO 2	Solve higher order differential equations and apply the concepts of differential equations to the real world problems.
CO 3	Find the Laplace Transform of various functions and apply to find the solutions of differential equations.
CO 4	Evaluate the multiple integrals and identify the vector differential operators physically in engineering problems.
CO 5	Evaluate the line, surface and volume integrals and converting them from one to another by using vector integral theorems.

Course Name: Engineering Chemistry/ A222006

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Understand the basic properties of water and its usage in domestic and industrial purposes.
CO 2	Acquire the basic knowledge of electrochemical procedures related to corrosion and its control.
CO 3	Learn the fundamentals and general properties of polymers and other engineering materials.
CO 4	Acquire knowledge of various energy sources.

CO 5	Apply the knowledge of engineering materials in daily life.

Course Name: Engineering Chemistry Lab/ A222084

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Determination of parameters like hardness and chloride content of water.
CO 2	Determination of rate of corrosion of mild steel in various conditions.
CO 3	To perform methods such as conductometry, potentiometry and pH metry in order to find out the concentrations or equivalence points of acids and bases.
CO 4	To prepare polymers like Thiokol and Nylon-6.
CO 5	Estimation of Saponification value, Viscosity and surface tension of lubricant oils.

Course Name: Engineering Mechanics / A222304

After completing this course the student must demonstrate the knowledge and ability to	
CO 1	Determine resultant of forces acting on a body and analyse equilibrium of a body subjected to a system of forces.
CO 2	Solve problem of bodies subjected to friction.
CO 3	Find the location of centroid and centre of gravity of the composite sections.
CO 4	Compute moment of inertia of various sections
CO 5	Analyze the kinetics and kinematics of a body undergoing rectilinear, curvilinear, rotatory motion and rigid body motion.

Course Name**: Engineering Materials / A222305**

	After completing this course the student must demonstrate the knowledge and ability to
CO1	Classify the various materials that will be essential for the mechanical engineering applications and testing for their mechanical properties
CO2	Understanding the composition and properties of Ferrous and Non-Ferrous Alloys
CO3	Analyze the manufacturing methods of composite materials for their overall feasibility
CO4	Evaluate the properties of ceramics and polymers employed in engineering components
CO5	Understanding the features of nano materials and high entropy alloys for engineering applications

Course Name**: Engineering Graphics & Modelling /A222303**

	After completing this course the student must demonstrate the knowledge and ability to
CO 1	Comprehend the concepts of engineering drawing and CAD software.
CO 2	Conceptualize and draw the projections of points and straight lines
CO 3	Visualize and project different views of a planes and solids.
CO 4	Evaluate the surfaces of solids developed for further processing in the engineering applications.
CO 5	Generate isometric and corresponding orthographic views of any given component.

Course Name:**Python Programming Lab / A222583**

	After completing this course the student must demonstrate the knowledge and ability to
CO 1	Develop the application specific codes using python.

CO 2	Understand Strings, Lists, Tuples and Dictionaries in Python
CO 3	Implement programs using modular approach, file I/O, Python standard library

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