



Savitribai Phule Shikshan Prasarak Mandal's
SKN SINHGAD COLLEGE OF ENGINEERING

(Approved by AICTE & Affiliated to Solapur University, Solapur.)
At Post- Korti, Taluka-Pandharpur, District-Solapur, Pin-413304

FIRST YEAR B. TECH.

ENGINEERING PHYSICS

Co.No	Course Outcomes
C011.1	Describe the concepts of semiconducting material and crystal structure.
C011.2	Apply basic concepts of acoustics and ultrasonic in engineering field.
C011.3	Relate space, time, mass and energy equations.
C011.4	Express the concepts of diffraction, polarization and can relate them to day to day observable phenomena.
C011.5	Explain the fundamental concepts, advantages and applications of laser and optical fiber in the field of science, engineering and medical.
C011.6	Express the basic concepts of quantum mechanics and nanotechnology.



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ENGINEERING CHEMISTRY

Co.No	Course Outcomes
C012.1	Describe importance of quality of water and appropriate water treatment process.
C012.2	Recognize various types of corrosion & propose a suitable prevention technique.
C012.3	Describe various instrumental techniques.
C012.4	Identify and explain different engineering materials like metals, ceramics, fuels, lubricants, polymers for various engineering and day to day applications.
C012.5	Calculate hardness of water, concentration of unknown solution, calorific value of fuels, saponification & acid value of oils, molecular weight of polymers etc.
C012.6	Describe various types of chemical reactions and commonly used drug molecules.



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ENGINEERING MATHEMATICS- I

Co.No	Course Outcomes
C112.1	Compute higher order derivative of standard functions and verify Mean Value Theorems.
C112.2	Describe the power series expansion of a given function and evaluate limits
C112.3	Apply matrices techniques for solving system simultaneous linear equations, Eigenvalues and Eigen vectors of the matrix
C112.4	Evaluate Multivariable derivatives and can implement to estimate maxima and minima of multivariable function
C112.5	Compute velocity vector, gradient, divergence, curl and applications.



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**BASIC ELECTRICAL AND ELECTRONICS
ENGINEERING**

Co.No	Course Outcomes
C123.1	Apply the various simplification methods to analyze dc circuits.
C123.2	Use the concept of magnetic circuits to calculate parameters of magnetic circuits and single-phase transformer.
C123.3	Apply knowledge of ac fundamentals and poly phase to analyze ac circuits.
C123.4	Explain working, characteristics and applications of diode and BJT.
C123.5	Select appropriate transducers to measure various physical parameters like distance, temperature etc.
C123.6	Perform arithmetic operations on digital number system.



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ENGINEERING MECHANICS

Co.No	Course Outcomes
C114.1	Apply fundamentals of Engineering Mechanics for analyzing effects of a system forces acting on a rigid body.
C114.2	Analyze various types of statically determinate beams, pin jointed trusses by analytical and graphical methods.
C114.3	Locate centroid, center of Gravity, and calculate moment of Inertia of plane lamina.
C114.4	Apply knowledge of Kinematics and Kinetics of rigid body motion to solve problems of bodies in motion.
C114.5	Use Work Energy methods for analyzing linear and rotational motion.



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COMMUNICATION SKILLS

Co.No	Course Outcomes
C116.1	Frame grammatically correct sentences for day-to-day Communication.
C116.2	Use numerous appropriate words and sentences in written communication.
C116.3	Demonstrate effective oral communication skills in various situations.
C116.4	Read, comprehend and answer the questions based on a passage.
C116.5	Draft letters, emails, write paragraphs and essays with appropriate content and context.
C116.6	Solve verbal ability questions in competitive exams



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WORKSHOP PRACTICE

Co.No	Course Outcomes
C118.1	Identify various hardware and software components of a computer and compare between them.
C118.2	Assemble a desktop from components supplied and Setup a working desktop system using a Raspberry Pi board.
C118.3	Identify and use various electronic components and instruments.
C118.4	Develop basic electronic circuits on breadboards.
C118.5	Demonstrate the use of an Arduino board using basic circuits.
C118.6	Prepare different shaped metalwork piece joints from the given metal blanks by selecting different tools and machines.
C118.7	Perform different types of welding of metal components.
C118.8	Select different engineering tools required to perform, fitting, machining, welding and joining processes.



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ENGINEERING MATHEMATICS -II

Co.No	Course Outcomes
C122.1	Solve first order ordinary differential equation and able to apply in different engineering applications
C122.2	Test divergence & convergence of infinite series
C122.3	Use the tools of differentiation of functions of a complex variable that are used in various techniques dealing engineering problems.
C122.4	Draw approximate shape of planer curve with justification.
C122.5	Evaluate improper and multiple integrals and their usage.



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ENGINEERING GRAPHICS AND CAD

Co.No	Course Outcomes
C125.1	Draw projection of lines and planes for engineering applications.
C125.2	Draw regular and sectional views of various types of solids.
C125.3	Draw the 2 D view (orthogonal views) given 3D drawing.
C125.4	Draw the development of the regular and truncated solids.
C125.5	Draft the 2-D drawing of machine components.



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BASICS OF CIVIL AND MECHANICAL ENGINEERING

Co.No	Course Outcomes
C113.1	Describe the role of civil engineer in the development of the society and Relationship of civil engineering with other branches of engineering and technology.
C113.2	Explain various elements of Environment & Water Resources Management, transportation engineering, buildings, concepts of Green Buildings, Remote sensing Techniques, GIS &GPS.
C113.3	Identify power producing/absorbing systems and related transmission systems.
C113.4	Explain various machining/joining processes implemented in everyday life.
C113.5	To determine heat and work quantum during different thermodynamic processes.



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PROGRAMMING FOR PROBLEM SOLVING

Co.No	Course Outcomes
C124.1	Design the flowcharts and algorithms for the given problem.
C124.2	Translate the algorithms into C programs and test & execute the programs.
C124.3	Implement C programs by appropriately selecting control and loop structures.
C124.4	Implement C programs using functions and pointers.
C124.5	Implement C programs using arrays, structure and unions and files.
C124.6	Develop small applications using C Programming concepts.



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PROFESSIONAL COMMUNICATION

Co.No	Course Outcomes
C126.1	Prepare good quality presentation and deliver it effectively.
C126.2	Participate effectively in group discussion
C126.3	Perform effectively in personal interview
C126.4	Prepare effective resume for job interviews
C126.5	Draft and write various reports professionally.