



ALL INDIA SHRI SHIVAJI MEMORIAL SOCIETY'S
COLLEGE OF ENGINEERING, PUNE - 1
Department of First Year Engineering
COURSE OUTCOMES



COURSE CODE	COURSE NAME	COURSE OUTCOMES
107001	Engineering Mathematics I	Able to understand and solve the system of linear equations arising in all engineering fields using matrix methods and knowledge of Eigen values and Eigen vectors.
		Able to understand and solve algebraic and transcendental equations.
		Able to understand successive differentiation, sequence and series of the functions.
		Able to understand the concept of limits and expansion of functions.
		Able to understand and solve ordinary and partial differential equations.
		Able to understand the concept of Jacobians, Maxima-Minima and error- approximations.
107009	Engineering Chemistry	Understand the technology involved in purification of water for industrial use
		Understand and describe basic concepts of electroanalytical methods that facilitate rapid and reliable measurements.
		Understand important relationships between chemical structure and properties of Polymers. Also applications of polymers in various engineering fields
		Understand the characteristics of different types of fuel, and look at the factors governing efficient combustion.
		Ability to know the development and applications of Nano-materials, Fuel cells, Composite materials in various fields of technologies.
		Analyze and able to explain the corrosion principles and mechanisms. Critically evaluate corrosion prevention and control strategies.
102006	Engineering Graphics-I	Ability to create geometric construction with hand tools
		Ability to solve traditional descriptive geometry problems. (Projection of Line and Plane)
		Ability to visualise and draw primitive solids.
		Ability to draw curves and lateral surfaces of primitive solids to develop the base for engineering design.
		Ability to draw 2 - D and 3 - D views of Solid objects.
		Ability to develop imagination of physical objects to be represented on paper for engineering communication.
103004	Basic Electrical Engineering	Understand and solve problems on basic terminologies of electrical engineering
		Understand and solve the problems on basic concepts of electromagnetism
		Understand the fundamentals of electrostatics and Single Phase transformer
		Understand and solve the problems on AC fundamentals
		Understand the fundamentals of AC single phase circuits and poly phase circuits
		Define various DC circuits laws, theorems and apply them to obtain solutions
101005	Basic Civil and Environmental Engineering	Student will understand the basic areas of civil engineering.
		Student will understand the types of structure and construction materials
		Student will be able to use modern surveying equipments.
		Student will to use the natural resources more effectively and reduce the waste generations.
		Student will be able to follow the principles and bye rules for building planning
		Student will be able to acquire the self learning with Presentation in a group on the topic related to environment and energy.
110003	Fundamentals of Programming Language-I	Students will be able to understand the fundamental concepts of Computer eg. software , hardware etc.
		Students will be able to understand the operating system and introductory part of computer programming languages.
		Students will be able to develop a program using fundamental syntax and semantics of the C programming language.
		Students will be able to understand different Decision control structures in C language.
		Students will get familiarize how the Pointer and Array concepts used for the programming.
		Students will able to write a program using the Functions and String.
		Ability to apply principles of optics for measurement of various complex Engineering Problems

107002	Engineering Physics	Ability to develop understanding of phenomenon of acoustics in various Engineering field and apply it for various applications
		Students will understand the recent trends and advances in technologies and know how it is implemented in applications
		Students will be able to use basic concepts to analyze and design a wide range of semiconductor devices
		Ability to analyze and solve quantum mechanical problems and enhance knowledge of atomic systems
		Ability to learn method of synthesis of nano-particles, study physical properties of nano materials and superconductors and understand their technological applications
104012	Basic Electronics Engineering	Able to get knowledge of some basic electronics components and circuit.
		Able to get acquainted with basics of diode and transistor circuits.
		Able to understand working of some IC based circuits.
		Able to get knowledge of logic gates and their usage in digital circuits.
		Able to understand working of some power electronics devices, transducers and application of transducer.
		Able to get acquainted with basic aspect of electronic communication systems.
107008	Engineering Mathematics-II	Able to understand the concept of modeling of various physical systems such as Newton's law of cooling, Electrical circuits, rectilinear motion etc.
		Able to design and analyse the continuous and discrete system, where knowledge of Fourier Series and Harmonic analysis is required.
		Able to use advanced techniques to evaluate integrals.
		Able to measure the arc length of various curves.
		Able to use the concept of Sphere, cone and cylinder that arise in vector calculus, electro-magnetic field theory, cad-cam, computer graphics etc.
		Able to workout Area, Volume, RMS values and Center of Gravity using techniques of multiple integrals.
102013	Basic Mechanical Engineering	Ability to identify common machine element and its applications
		Ability to understand various engineering materials and their properties
		Ability to understand manufacturing processes
		Ability to understand working of basic machine tools
		Ability to understand basic concept of thermodynamics and energy conversion
		Ability to acquire knowledge of Mechanical Engineering
101011	Engineering Mechanics	Students will demonstrate knowledge of mathematics and mechanics with logics in resolution and composition of force systems.
		Students will demonstrate the ability to relate kinematics with kinetic equations on linear displacement, velocity and acceleration
		Students will solve practical examples related to curvilinear motion.
		Students will correlate power; work and energy to solve practical problems.
		Students will be able to develop the confidence for self learning in application of equilibrium conditions for coplanar and non coplanar force system.
		Students will get prepare for analysis of truss, cable, frame and friction.
110010	Fundamentals of Programming Languages-II	Students will be able to Design and develop programs using the concepts of Structure and Union.
		Students will be able to understand the concepts of data structure and new concepts like abstract data types.
		Students will be able to develop programs using object oriented programming concepts.
		Students will get the knowledge of Wireless application and Mobile OS.
		Students will be able to design and develop mobile applications and Web Pages.
		Students will be able to design and develop simple application using Embedded Programming.
102014	Engineering Graphics-II	Student should be able to draw and learn the concept of primitive solids inclined to HP and VP by using AutoCAD.
		Student should be able to construct different engineering curves like ellipse, involutes etc. by using AutoCAD.
		Student should be able to develop the lateral surfaces of primitive solids by using AutoCAD.
		Student should be able to visualise the pictorial view and draw orthographic projection on reference planes including sections by using AutoCAD.
		Ability to develop imagination of physical objects to be represented on paper for Engineering Communication.