

## Jayawant Shikshan Prasarak Mandal's JSPM Narhe Technical Campus Rajarshi Shahu School of Engineering and Research



## **Department of Engineering Science**

Department of Engineering Science		
Course Outcomes		
Fundamentals of Programming Languages -II		
110010		
At the end of course, students will be able to-		
Understand the concepts of Structure and Union.		
Analyze, Design & Apply the concept of OOPs in data structure		
Analyze, Design & Develop webpage using Web Technology HTML		
Analyze, Design & Develop Mobile Application and Embedded system		
using advanced technologies.		
Basic Mechanical Engg.		
102013		
rse, students will be able to-		
Define the scope of mechanical engineering, compare and classify the machine elements.		
Elaborate the steps in design process.		
Select different manufacturing processes for given engineering applications.		
Select machine tools for manufacturing of machine components.		
Explain the basic concepts of thermodynamics, principle of energy conservation and conversion.		
Identify and explain different power producing devices and power consuming devices.		
Engineering Mechanics		
101011		
At the end of course, students will be able to-		
analyze the coplanar and non coplanar force system to find resultant		
locate centroid of given composite lamina and wire bend.		
analyze kinematics of rectilinear and curvilinear motions parameters.		
analyze kinetics of rectilinear and curvilinear motions using D'alember principle,		
impulse, and momentum and work energy principles		
Draw FBD and analyze coplanar and non coplanar forces system in equilibrium,		
including beam, frames, cables and truss structures.		
Apply coulombs law of friction to engineering problem of wedges, ladder and rope of belt friction.		
Basic Electronics Engineering		
104012		
rse, students will be able to-		
A selection of the CDM selection of the control of		
Apply the concepts of PN junction and special purpose diodes for different applications		

CO3:-	Analyze modes, parameter, feedback and various applications of operational amplifier.	
CO4:-	Construct various digital circuit diagrams using gates with precise output and reduced	
	complexity.	
CO5:-	Classify power devices and transducers with respect to requirement	
CO6:-	Identify transmission media and modulation for electronic communication	
	along with details of mobile communication	
	Engineering Physics	
Course Code:-		
At the end of cou	rse, students will be able to-	
	Able to analyze basic knowledge of optics for engineering and technological problem	
CO2:-	Able to understand terms and applications related to sound engineering for social	
	and scientific application	
CO3:-	Able to apply concepts of polarization and laser for scientific , industrial and medical	
	applications	
CO4:-	Able to apply knowledge of semiconductor physics for recent trends and advances	
	in technological development	
CO5:-	Able to understand basic concepts of matter waves for developing mathematical and	
	analitical abilities in wave mechanics	
CO6:-	Able to use knowledge of superconductors and nano materials in recent trends and	
	advance technology	
Course Name:-	Engg Mathematics-II	
Course Code:-	107008	
At the end of course, students will be able to-		
CO1:-	Modeling of various physical systems such as Newton's law of cooling, L-C-R circuits,	
	rectilinear motion , mass spring systems heat transfer etc.	
CO2:-	Design and analysis of continuous and discrete system, where knowledge of	
	Fourier series and Harmonic analysis is required.	
CO3:-	Advanced technique to evaluate integrals.	
CO4:-	Measurement of arc lengths of various curves.	
CO5:-	Sphere, cone and cylinder that arise in vector calculus , electro-magnetic field Theory, CAD-CAM ,	
	Computer Graphics etc.	
CO6:-	Multiple integrals which are used in calculating areas, volumes, mean and Root mean	
	square values mass, moments of inertia and centre of gravity.	
Course Name:-	Basic Electrical Engineering	
Course Code:-	103004	
At the end of course, students will be able to-		
CO1:-	Demonstrate and measurement of resistance with the variation of temperature, importance of insulation	
	resistance, classification and evaluation of energy consumption through energy conversion.	
3		

CO2:-	Summerize the fundamentals of electromagnetism, compare electrical and magnetic circuit, make use of	
	magnetic circuit concepts to solve the numericals.	
CO3:-	Apply the concepts of electromagnetic induction to analyze the principle of	
	transformer and summarize the concepts of electrostatics.	
CO4:-	Extend the concept of electromagnetic induction for generation of ac and its	
	representation for practical analysis of ac circuits	
CO5:-	Illustrate the concepts of single and three phase ac circuits along with the	
	phasor diagrams.	
CO6:-	Simplify the networks and provide the solution by applying Kirchhoff's	
	laws and theorems	
Course Name:-	Engineering Chemistry	
Course Code:-	107009	
At the end of course, students will be able to-		
CO1:-	Apply different methodologies for analysis of water, techniques for softening of water and concept of green	
	chemistry in synthesis of various chemical compounds.	
CO2:-	Utilize analytical methods for analysis of various chemical compounds.	
CO3:-	Identify different types of polymer, their preparation methods, properties and applications in various fields.	
CO4:-	Analyze quality of fossil and derived fuels on the basis of their composition.	
CO5:-	Explain the importance of carbon and hydrogen compounds in the development of modern technologies.	
CO6:-	Student will be able to explain causes for corrosion and its preventive methods.	