



**Late Purushottam Hari (Ganesh) Patil Shikshan Sanstha's
Mauli Group of Institutions,
College of Engineering & Technology, Shegaon**
Session 2023-24



B.E. 1st Semester

Course: Engineering Mathematics – I

Course Code: (1A1)

At the end of Engineering Mathematics – I course; the students will be able to:

CO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
CO 1	Apply Leibnitz's rule for finding successive differentiation of product of two functions & Evaluate the Taylor's & Maclaurin's series expansion of a function.	L3
CO 2	Apply the concept of partial differentiation to different problems like application of Euler's theorem, application to Maxima/Minima.	L3
CO 3	Apply Demoiver's theorem in various concepts of complex number.	L3
CO 4	Solve all types of first order first degree differential equations.	L3
CO 5	Solve first order and higher degree differential equations and apply them as mathematical modeling in electric and mechanical systems.	L3
CO 6	Understand the concept convergence of sequence and series.	L2

Course: Engineering Physics

Course Code: (1A2)

At the end of Engineering Physics course; the students will be able to:

CO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
CO 1	Explain the position of Fermi levels in intrinsic and extrinsic semiconductors and semiconductors conductivity.	L4
CO 2	Understand Dual nature of wave particle, wave function and its significance.	L2
CO 3	Describe the motion of electrons in Electric and Magnetic fields.	L4
CO 4	Express the fundamental condition of interference and different diffraction mechanisms.	L4
CO 5	Describe the principle of optical fiber, applications of optical fiber, working principle of LASER and their applications.	L3
CO 6	Define and explain fluid dynamics and acoustics.	L3

Course: Engineering Mechanics**Course Code: (1A3)**

At the end of Engineering Mechanics course; the students will be able to:

CO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
CO 1	Compose and resolve the forces along with its effect.	L3
CO 2	Apply principles of statics to the system of rigid bodies and analyze simple structures and also calculate frictional forces for simple contact, wedges and belt friction.	L3
CO 3	Locate centroid and calculate moment of inertia.	L4
CO 4	Calculate various kinematic quantities.	L3
CO 5	Solve the problems using different kinetic equations related to direct and interconnected particles.	L3
CO 6	Study work-energy equation and apply principle of conservation of momentum and laws of impact.	L3

Course: Computer Programming**Course Code: (1A4)**

At the end of Computer Programming course; the students will be able to:

CO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
CO 1	Explain the fundamental concept of computer and computing.	L2
CO 2	Test and execute the programs and correct syntax and logical errors.	L3
CO 3	Implement conditional branching, iteration and recursion.	L3
CO 4	Use arrays, pointers and structures to formulate algorithms and Programs.	L3
CO 5	Recognize various problem-solving techniques and computer applications.	L2
CO 6	Understand programming concepts to solve real life problems.	L2

Course: Workshop Practice**Course Code: (1A5)**

At the end of Workshop Practice course; the students will be able to:

LO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
LO 1	Gain knowledge of different manufacturing processes which are commonly employed in industry.	L2
LO 2	Fabricate the components using various manufacturing techniques.	L3
LO 3	Conversant with the concept of dimensional accuracy and tolerances.	L3

Course: Engineering Physics Laboratory**Course Code: (1A6)**

At the end of Engineering Physics Laboratory course; the students will be able to:

LO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
LO 1	Analyze the characteristic of semiconductor devices by plotting the graph between voltage & current, between temperature & current to determine energy band gap.	L4
LO 2	Estimate the optical properties of light such as interference by using Newton's ring to determine wavelength of monochromatic source.	L3
LO 3	Apply the principle & characteristic parameter of a signal by using CRO & Thomson's method.	L3

Course: Engineering Mechanics Laboratory**Course Code: (1A7)**

At the end of Engineering Mechanics Laboratory course; the students will be able to:

LO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
LO 1	Prove the concepts related to engineering mechanics.	L2
LO 2	Calculate lifting machine parameters.	L3
LO 3	Perform graphical analysis of force systems and simple structures.	L3

Course: Computer Programming Laboratory**Course Code: (1A8)**

At the end of Computer Programming Laboratory course; the students will be able to:

LO No.	Course Outcome	Level of Learning (as per Bloom's Taxonomy)
LO 1	Learn basic concept and execution of C programming.	L2
LO 2	Implement programs based on Conditional operators and different control statements in C programming	L3
LO 3	Test and execute programs related to multi-dimensional array and pointer	L4