

Department of Applied Science and Humanities

B.E. 1st Sem

Course: Engineering Mathematics-I

Course Code: (1A1)

At the end of Engineering Mathematics-I course the student will be able:

- CO 1:** To understand Rolle's Theorem and its applications to engineering problems.
- CO 2:** To understand the maxima minima concept.
- CO 3:** To apply De Moivre's Theorem in various concepts of complex numbers.
- CO 4:** To solve differential equations of certain types that they might encounter in the same or higher semester.
- CO 5:** To apply applications of ordinary differential equations to engineering problems.
- CO 6:** To understand the concept of sequence and series and its convergence.

Course: Engineering Physics

Course Code: (1A2)

At the end of Engineering Physics course the student will be able:

- CO 1:** To explain the position of Fermi levels in intrinsic and extrinsic semiconductors and semiconductors conductivity.
- CO 2:** To understand Dual nature of wave particle, wave function and its significance.
- CO 3:** To describe the motion of electrons in Electric and Magnetic fields.
- CO 4:** To express the fundamental condition of interference and different diffraction mechanisms.
- CO 5:** To describe the principle of optical fiber, applications of optical fiber, working principle of LASER and their applications.
- CO 6:** To define and explain fluid dynamics and acoustics.

Course: Engineering Mechanics

Course Code: (1A3)

At the end of Engineering Mechanics course the student will be able:

- CO 1:** To Compose and resolve the forces along with its effect.
- CO 2:** To 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.
- CO 3:** To Locate centroid and calculate moment of inertia
- CO 4:** To calculate various kinematic quantities.
- CO 5:** To solve the problems using different kinetic equations related to direct and Interconnected particles.
- CO 6:** To Apply principle of conservation of momentum and laws of impact.

Course: Computer Programming

Course Code: (1A4)

At the end of Computer Programming course the student will be able:

- CO 1:** To explain the fundamental concept of computer and computing.
- CO 2:** To test and execute the programs and correct syntax and logical errors.
- CO 3:** To implement conditional branching, iteration and recursion.
- CO 4:** To use arrays, pointers and structures to formulate algorithms and Programs.
- CO 5:** To recognize various problem solving techniques and computer applications.
- CO 6:** To understand programming concepts to solve real life problems.