1ST SEMESTER

Course Outcomes

Physics I

Sl. No.	Category	Course Code	Course Title
1	Basic Science Course	BSC101	Physics I

CO1: Students to get familiarize with the knowledge of harmonic oscillation and wave optics.

CO2: To make student understand the basic of electrostatics and magneto statics in vacuum and in material medium.

CO3: Students to get familiarized with the vector calculus and Maxwell's equation leading to the application of EMW in vacuum and in media

Mathematics – I

Sl. No.	Category	Course Code	Course Title
1	Basic Science Course	BSC103	Mathematics – I

CO1: To introduce the idea of applying differential and integral calculus to notions of curvature and to improper integrals.

CO2: To introduce the fallouts of Rolle's Theorem that is fundamental to application of analysis to Engineering problems.

CO3: To develop the tool of power series and Fourier series for learning advanced Engineering Mathematics.

CO4: To familiarize the student with functions of several variables that is essential in most branches of engineering.

CO5: To develop the essential tool of matrices and linear algebra in a comprehensive manner.

Basic Electrical Engineering

Sl. No.	Category	Course Code	Course Title
1	Engineering Science Courses	ESC101	Basic Electrical Engineering

CO1: To understand and analyze basic electric and magnetic circuits.

CO2: To study the working principles of electrical machines and power converters.

CO3: To introduce the components of low voltage electrical installations.

Engineering Graphics & Design

Sl. No.	Category	Course Code	Course Title
1	Engineering Science Courses	ESC102	Engineering Graphics & Design

All phases of manufacturing or construction require the conversion of new ideas and design concepts into the basic line language of graphics. Therefore, there are many areas (civil, mechanical, electrical, architectural and industrial) in which the skills of the CAD technicians play major roles in the design and development of new products or construction. Students prepare for actual work situations through practical training in a new state-of-the-art computer designed CAD laboratory using engineering software. This course is designed to address:

CO1: To prepare you to design a system, component, or process to meet desired needs within• realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

CO2: To prepare you to communicate effectively

CO3: To prepare you to use the techniques, skills, and modern engineering tools necessary for engineering practice The student will learn :

- Introduction to engineering design and its place in society
- Exposure to the visual aspects of engineering design
- Exposure to engineering graphics standards
- Exposure to solid modeling
- Exposure to computer-aided geometric design
- Exposure to creating working drawings
- Exposure to engineering communication

2ND SEMESTER

Course Outcomes

Physics II

Sl. No.	Category	Course Code	Course Title
1	Basic Science Course	BSC105	Physics II

CO1: Students to learn the basics of Quantum mechanics and its application to bound states.

CO2: To understand the wave particle duality.

CO3: To be able to understand Special theory of relativity and its consequences.

CO4: To get familiarize with fiber optics and laser, their basic concept and application in engineering.

Chemistry I

Sl. No.	Category	Course Code	Course Title
1	Basic Science Course	BSC102	Chemistry I

The concepts develops in this course will aid in quantification of several concepts in chemistry that have been introduced at the 10+2 levels in schools. Technology is being increasing based on the electronic, atomic and molecular level modifications. Quantum theory is more than 100 years old and to understand phenomena at nanometer levels; one has to base the description of all chemical processes at molecular levels. The course will enable the student to:

CO1: Analyse microscope chemistry in terms of atomic and molecular orbitals and intermolecular forces.

CO2: Rationalise bulk properties and processes using thermodynamics considerations.

CO3: Distinguish the range of the electromagnetic spectrum used for exciting different molecular energy levels in various spectroscope techniques

CO4: Rationalise periodic properties such as ionization potential, electronegativity, oxidation states and electronegativity.

CO5: Apply the concept and mechanism of polymerization

MATHEMATICS - II

Sl. No.	Category	Course Code	Course Title
1	Basic Science Course	BSC 104	Mathematics-II

CO1: To familiarize the prospective engineers with techniques in multivariate integration, ordinary and partial differential equations and complex variables.

CO2: To equip the students to deal with advanced level of mathematics and applications that would be essential for their disciplines.

Programming for Problem Solving

Sl. No.	Category	Course Code	Course Title
1	Engineering Science Courses	ESC103	Programming for Problem Solving

The student will learn:

CO1: To formulate simple algorithms for arithmetic and logical problems.

CO2: To translate the algorithms to programs (in C language).

CO3: To test and execute the programs and correct syntax and logical errors.

CO4: To implement conditional branching, iteration and recursion.

CO5: To decompose a problem into functions and synthesize a complete program using divide and conquer approach.

CO6: To use arrays, pointers and structures to formulate algorithms and programs.

CO7: To apply programming to solve matrix addition and multiplication problems and searching and sorting problems.

CO8: To apply programming to solve simple numerical method problems, namely rot finding of function, differentiation of function and simple integration

English

Sl. No.	Category	Course Code	Course Title
1	Humanities and Social Sciences including Management Courses	HSMC101	English

CO1: The student will acquire basic proficiency in English including reading and listening comprehension, writing and speaking skills.