PHYSICS (SEMICONDUCTOR PHYSICS) (1st/2nd Semester)
Course Code: BPHYS1-101

Course Outcomes:

After undertaking this course:

CO1: student will able to describe the quantum mechanics and its application

CO2: student will able to write down the band theory of solids

CO3: student will able to describe n and p type semiconductor, principle and working of laser and its application

CO4: student will able to understand the importance and application of optical fibre

MATHEMATICS-I (CALCULUS, LINEAR ALGEBRA) (1st/2nd Semester)
Course Code: BMATH1-101

Course Outcomes:

This will help the students:

CO1: To apply differential and integral calculus to notions of curvature and to improper integrals. Apart from some other applications they will have a basic understanding of Beta and Gamma functions.

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

CO3: The tool of power series and Fourier series for learning advanced Engineering Mathematics.

CO4: To deal with functions of several variables that are essential in most branches of engineering.

CO5: The essential tool of matrices and linear algebra in a comprehensive manner.

ENGINEERING GRAPHICS & DESIGN (1st/2nd Semester)
Course Code: BMECE0-101

Course Outcomes:

After undertaking this course:

CO1: Students will get a basic understanding of engineering drawing and its principles

CO2: Students will get exposure to drawing, drafting techniques and interpretation of drawing Scales

CO3: Students will learn about the projection of Point, line, Planes and regular solids

CO4: Students will learn about the development of surfaces

CO5: Students will learn about Isometric and Orthographic Projections of Simple and compound Solids

BASIC ELECTRICAL ENGINEERING (1st/2nd Semester)
Course Code: BELEE0-101

Course Outcomes:

This will help the students:

CO1: To understand and analyze basic DC and AC circuits.

CO2: To study the use and working principle of single-phase transformers.

CO3: To study the application and working principles of three phase and single-phase induction motors.

CO4: To introduce to the components of low voltage electrical installations.

PHYSICS (SEMICONDUCTOR PHYSICS) LAB. (1st/2nd Semester)
Course Code: BPHYS1-102

Course Outcomes:

This will help the students:

CO1: To able to analyse handling and use of different type of diode.

CO2: Analyse the use of lasers.

CO3: To understand the working of spectrometer

ENGINEERING GRAPHICS & DESIGN LAB. (1st/2nd Semester)
Course Code: BMECE0-102

Course Outcomes:

After undertaking this course:

CO1: Students will get exposure to computer-aided geometric design

CO2: Students will get exposure to creating working drawings

CO3: Students will get exposure to engineering drawings.

BASIC ELECTRICAL ENGINEERING LAB. (1st/2nd Semester)
Course Code: BELEE0-102

Course Outcomes:

This will help the students to:

CO1: Get an exposure to common electrical components and their ratings.

CO2: Make electrical connections by wires of appropriate ratings.

CO3: Understand the usage of common electrical measuring instruments.

CO4: Understand the basic characteristics of transformers and electrical induction motors.

DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION (1st/2nd Semester)

Course Code: BHUMA0-104

Course Outcomes:

After undertaking this course:

CO1: Students will learn to understand prevention of Drug Abuse

CO2: Students will learn to understand treatment and Control of Drug Abuse

INTRODUCTION TO COMPUTER SCIENCE & ENGINEERING (1st/2nd Semester)

Course Code: BCOBE0-101

Course Outcomes:

After undertaking this course:

CO1: Students will learn about Scope and Applications of Computer Science & Engineering.

CO2: Students will learn about various types of Hardware and Software components.

CO3: Students will learn about High level and low-level languages

CO4: Students will learn about Operating System

CHEMISTRY-I (1st/2nd Semester)

Course Code: BCHEM0-101

Course Outcomes:

The students after undertaking this course will be able to:

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

CO2: Rationalize bulk properties and processes using thermodynamic considerations.

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

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

CO5: List major chemical reactions that are used in the synthesis of molecules.

MATHEMATICS-II (PROBABILITY AND STATISTICS) (1st/2nd Semester)
Course Code: BMATH1-201

Course Outcomes:

The students will able to understand:

CO1: The mathematical tools needed in evaluating multiple integrals and their usage.

CO2: The effective mathematical tools for the solutions of differential equations that model physical processes.

CO3: The tools of differentiation and integration of functions of a complex variable that are used in various techniques dealing engineering problems.

ENGLISH (1st/2nd Semester)
Course Code: BHUMA0-101

Course Outcomes:

After undertaking this:

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

PROGRAMMING FOR PROBLEM SOLVING (1st/2nd Semester)
Course Code: BCSCE0-101

Course Outcomes:

The students after undertaking this course will be able:

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.

<center>**CHEMISTRY-I LAB. (1st/2nd Semester)**</center>
<center>**Course Code: BCHEM0-101**</center>

Course Outcomes:

The students after undertaking this course will be able to:

CO1: Estimate rate constants of reactions from concentration of reactants/products as a function of time

CO2: Measure molecular/system properties such as surface tension, viscosity, conductance of solutions, redox potentials, chloride content of water, etc.

CO3: Synthesize a small drug molecule and analyze a salt sample

<center>**ENGLISH LAB. (1st/2nd Semester)**</center>
<center>**Course Code: BHUMA0-102**</center>

Course Outcomes:

The students after undertaking this course will be able:

CO1: To cover comprehensive exposition to lexical derivatives and word-formation

CO2: To understand the mechanics of writing: semantics

CO3: To identify errors and non-native flaws in English sentence framework

CO4: To learn nature and style of writing with varied writing forms

<center>**PROGRAMMING FOR PROBLEM SOLVING LAB. (1st/2nd Semester)**</center>
<center>**Course Code: BCSCE0-102**</center>

Course Outcomes:

The students after undertaking this course will be able:

CO1: To formulate the algorithms for simple problems.

CO2: To translate given algorithms to a working and correct program.

CO3: To be able to correct syntax errors as reported by the compilers.

CO4: To be able to identify and correct logical errors encountered at run time.

CO5: To be able to write iterative as well as recursive programs.

CO6: To be able to represent data in arrays, strings and structures and manipulate them through a program.

CO7: To be able to declare pointers of different types and use them in defining self-referential structures.

CO8: To be able to create, read and write to and from simple text files.

MANUFACTURING PRACTICES (THEORY & LAB.) (1st/2nd Semester)
Course Code: BMFPR0-101

Course Outcomes:

The students:

CO1: Upon completion of this course, the students will gain knowledge of the different manufacturing processes which are commonly employed in the industry, to fabricate components using different materials.

CO2: Upon completion of this laboratory course, students will be able to fabricate components with their own hands.

CO3: Upon completion of this course, they will also get practical knowledge of the dimensional accuracies and dimensional tolerances possible with different manufacturing processes.

CO4: Will different components, they will be able to produce small devices of their interest.

HUMAN VALUES AND PROFESSIONAL ETHICS (1st/2nd Semester)
Course Code: BHUMA0-103

Course Outcomes:

After undertaking this course:

CO1: Students will learn to understand meaning of values, Values as social fact and

Universal values CO2: Students will learn to understand values, morality, ethics and their

relation with Religion

CO3: Students will learn to understand meaning and types of Professional Ethics,

Goals of professional work and their problems

CO4: Students will learn to understand the technology for and against mankind and environment