COURSE- B.Sc.(Computer Application)

Program Outcome(PO)

PO	**Attain strong base to pursue higher education in the field of Computer Application and skill to use modern computing tools and techniques for learning and developing software solutions.**

Program Specific Outcome(PSO)

PSO	**Attain skills to work with the latest technologies and programming languages.**

Course Outcomes

I Year-Semester-I

Course: CA-101 Fundamentals of Computers and Windows Operating System

CO-101	**Understand the complete fundamentals of Computer System**

Course: CA-102 Office Automation Tools

CO-102	**Explain Windows and its Features including Windows Accessories and complete knowledge of Ms- Office and Page maker**

Course: BM-111 Algebra

CO-111	**Understand Matrices, Polynomial equations and solutions of cubic equations.**

Course: BM-112 Calculus

CO-112	**Understand concepts like Successive differentiation, Cartesian cures and quadrature.**

Course: BM-113 Solid Geometry

CO-113	**Understand and apply second degree equations, sphere, central conicoids, and parabola.**

Course: PH-101 Classical Mechanics & Theory of relativity

CO-101	**Apply transformation equations, generalized notations, applications of theory of relativity.**

Course: PH-102 Electricity, Magnetism & Electromagnetic Theory

CO-102	**Use of Vector basic and electric field, electromagnetism and circuit analysis.**

Course: Eng-101 English (BSc)-I

CO-101	**Improve LSRW-listening, speaking, reading and writing skills and the related sub-Skills.**

I Year- Semester-II

Course: CA- 201 Information Technology

CO-	**Knowledge of Computer Fundamentals, Data Communication &**

201 **Networking**

Course: Programming in C

CO-202 **Knowledge of Operators, Data types, Array, Functions and can develop programs in C language..**

Course: BM-121 Number Theory & Trigonometry

CO-121 **Expansion of trigonometric functions, various theorems of Gauss.**

Course: BM-122 Ordinary Differential Equation

CO-122 **Explain the concept of Orthogonal trajectories and linear differential equations of second order.**

Course: BM-123 Vector Calculus

CO-123 **Applications of Vector integration, Vector divergence.**

Course: PH-201 Properties of Matter & Kinetic Theory of Gases

CO-201 **Understand and apply moment of Inertia , kinetic theory of Gases.**

Course: PH-202 Semiconductor Devices

CO-202 **Discuss the applications of transistors, amplifiers and oscillators.**

Course: Eng-201 English (BSc)-II

CO-201 **Writing Official letters/applications and Accuracy in using English in situations(for example: greetings, in the post office, catching train, at a bank, making a telephone call,buying vegetables, at the hospital, on the bus etc.**

II Year-Semester-III

Course: CA-301 Web Designing Fundamentals

CO-301 **Understand various HTML tags, tables, Frames and Forms.**

Course: CA-302 Database Management System

CO-302 **Understand and explain data, Database System Architecture, Data Independence.**

Course: BM-231 Advance Calculus

CO-231 **Understand Lagrange's mean value theorem, homogeneous functions and locus of center of spherical curvature.**

Course: BM-232 Partial Differential Equation

CO-232 **Understand; apply partial and linear differential equations of second and higher orders.**

Course: BM-233 Statics

CO-233 **Frictions and Forces in three dimensions.**

Course: PH-301 Computer Programming & Thermodynamics

CO-301 **Computer Organization , Applications of Fortran programming and various laws of thermodynamics.**

Course: PH-302 Wave & Optics-I

CO-302 **Understand various laws of Interference and diffraction.**

Course: ST-301 Elementary Inference

CO-301 **Apply hypothesis, Statistical estimation and large sample test.**

Course: ST-302 Sample Survey

CO-302 **Describe various sampling methods and estimation.**

II Year-Semester-IV

Course : CA- 401 Web Designing using Advanced Tools

CO-401 **Use advanced topics inHTML5, CSS3, JavaScript, DHTML and Working with Macromedia flash player and other interactivity tools.**

Course : CA- 402 Programming in Visual Basic

CO-402 **Distinguish and compose events and methods, Students code visual programs by using Visual Basic work environment.**

Course : BM-241 Sequence & Series

CO-241 **Applications of Cauchy's sequence, infinite series and real sequence.**

Course : BM-242 Special Function & Integral Transforms

CO-242 **Discuss Laplace transformation. Fourier analysis and solutions to various differential equations.**

Course : BM-243 Programming in C and Numerical Methods

CO-243 **Knowledge of Operators, Data types, Array, Functions and can develop programs in C language and solutions to simultaneous linear equations.**

Course : PH-401 Statistical Physics

CO-401 **Understand and apply macroscopic and microscopic systems, probability theory, postulates of statistical physics and Quantum stats.**

Course : PH-402 Wave & Optics-II

CO-402 **Discuss laws of Polarization, Fourier analysis and Fourier transformation.**

Course : ST-401 Parametric & Non-parametric Test

CO-401 **Apply Chi-square distribution and various other distributions like F,T and non parametric test.**

Course: ST-402 Design of experiments

CO-402 **Design and Analysis of Anova , CRD, RBD and LSD.**

III Year- Semester-V

Course: CA-501 Desktop Publishing

CO-501 **Design and edit publication in Page maker**

Course: CA-502 Programming using C++

CO-502 **Develop simple applications using class, objects, constructors and applications using Concepts of Polymorphism, Function Overloading, Inline Functions.**

Course: BM-351 Real Analysis

CO-351 **Applications of Improper integrals and their convergence, various examples of metric space and continuous function.**

Course: BM-352 Groups & Rings

CO-352 **Identify various types of Groups, Polynomial Rings and permutation groups.**

Course: BM-353 Numerical Analysis

CO-353 **Understand and perform Computer Arithmetic: Floating-point representation of numbers, arithmetic operations with normalized floating-point numbers and their consequences,significant figures.Error in number representation- inherent error, truncation,absolute,relative, percentage and round-off error and applyIterativeMethods.**

Course: PH-501 Quantum & Laser Physics

CO-501 **Applications of Schrodinger wave equation, absorption and emission of radiation, threshold**

Course: PH-502 Nuclear Physics

CO-502 **Applications of Alpha disintegration and its theory, interaction & absorption of Gamma ray.**

Course: ST-501 Applied Statistics

CO-501 **Understand and analyze time series, various demographic methods & index numbers**

Course: ST-502 Numerical Methods & Fundamental of Computer

CO-502 **Understand various numerical methods like Interpolation, Extrapolation , Newton's formula ,Trapezoidal rule & Simpson rule**

III Year- Semester-VI

Course: CA-601 Multimedia Tools

CO-601 **Use and apply tools for image processing, video, sound and animation and Explain different audio and video compression techniques.**

Course: CA- 602 Advanced Programming using C++

CO-602 **Develop applications using inheritance,templates and exception handling.**

Course: BM-361 Real & Complex Analysis

CO-361 **Discuss mapping by elementary functions, Extended stereographic projection of Complex numbers & Fourier series**

Course: BM-362 Linear Algebra

CO-362 **Understand Vector space, Isomorphism of Vector space, Algebra of linear transformation & Eigenvectors of linear transformations**

Course: BM-363 Dynamics

CO-363 **Calculate & Apply velocity, Acceleration, Mass , Momentum and Force & Motion**

Course: PH-601 Solid States & Nano Physics

CO-601 **Discuss Crystal structure, X-Ray diffraction , Super conducting system & Importance of nano scale & nano technology.**

Course: PH-602 Atomic & Molecular Spectroscopy

CO-602 **Various quantization laws Orbital magnetic dipole, Penetrating & non Penetrating orbits**

Course: ST-601 Statistical Quality Control

CO-601 **Describe Various statistical quality control uses, Acceptance sampling & various laws of demand & supply**

Course: ST-602 Operational Research

CO-602 **Meaning & necessity of various OR Models, Graphical solutions of LPP & various artificial variable techniques**