Programme	**: UG**	**Part III**	**: Core**
Semester	**: III**	**Hours per week**	**: 05**
Sub code	**: 18UMCC31**	**Credit**	**: 05**

INTEGRAL CALCULUS

Course Outcomes

CO1: To give an idea about the properties of definite integrals.
CO2: To apply integral calculus to evaluate double and triple integrals.
CO3: To understand the basic concepts interchanging Cartesian to polar co-ordinates.
CO4: To understand the various properties of Beta and Gamma functions.

Programme	**: UG**	**Part III**	**: Core**
Semester	**: III**	**Hours per week**	**: 05**
Sub code	**: 18UMCC32**	**Credit**	**: 05**

SEQUENCES AND SERIES

Course Outcomes

CO1: To learn about sequences through examples.
CO2 : To introduce infinite series and alternative series.
CO3: To familiarize the application of series in Trigonometry.
CO4: To understand how the elementary functions can be defined by power
series, with an ability to deduce some of their easier properties**.**

Programme	**: UG**	**Part III**	**: Allied**
Semester	**: III**	**Hours per week**	**: 04**
Subject Code	**: 18UMCA31**	**Credit**	**: 03**

PROGRAMMING IN C++

Course Outcomes

CO1: To gain the knowledge of Object Oriented Programming concepts.
CO2: To make the students acquainted with the structure of C++ programs.
CO3: To develop the program writing skills.
CO4: To understand advanced features of C++ specifically Operator overloading and
Inheritance.

Programme : UG	Part III	: Allied
Semester : III	Hours per week	: 02
Subject Code : 18UMCAP2	Credit	: 01

PROGRAMMING IN C++ - LAB

Course Outcomes
CO1: To gain the knowledge of Object Oriented Programming concepts.
CO2: To make the students acquainted with the structure of C++ programs.
CO3: To develop the program writing skills.
CO4: To understand advanced features of C++ specifically Operator overloading and Inheritance.

Programme : UG	Part IV	: NME
Semester : III	Hours per week	: 02
Subject code : 18UMCN31	Credit	: 02

ARITHMETIC AND MENTAL ABILITY – I

Course Outcomes
CO1: To introduce basic concepts of Mathematics.
CO2: To develop the computational skills.
CO3: To improve required skills to face competitive examinations.
CO4: To create skills in solving real life word problems.

Programme : UG	Part III	: Core
Semester : IV	Hours per week	: 05
Sub code : 18UMCC41	Credit	: 05

ANALYTICAL GEOMETRY 3D AND VECTOR CALCULUS

Course Outcomes:
CO1: To understand the concepts of equation of a plane, Straight line, Sphere,
CO2: To learn the basic concepts in vector differentiation.
CO3: To acquire the knowledge of Analytical geometry of three dimensions & vector calculus.
CO4: To introduce the application of double and triple Integration.

Programme	: UG	Part III	: Core
Semester	: IV	Hours per week	: 05
Sub code	: 18UMCC42	Credit	: 05

STATISTICS - I

Course Outcomes

CO1: To develop skills in basic statistical concepts.
CO2: To introduce Correlation and Regression.
CO3: To learn about various techniques on curve fitting.
CO4: To imply all kinds of attributes in statistics.

Programme	: UG	Part III	: Allied
Semester	: IV	Hours per week	: 06
Subject Code	: 18UMCA41	Credit	: 04

PYTHON PROGRAMMING

Course Outcomes:

CO1: To design a program to solve the problem
CO2: To apply a solution clearly and accurately in a program using Python.
CO3: To apply the best features of mathematics, engineering and natural sciences to program real life problems.
CO4: To develop skills in designing graphical user interfaces in Python.

Programme	: UG	Part IV	: NME
Semester	: IV	Hours per week	: 02
Subject code	: 18UMCN41	Credit	: 02

ARITHMETIC AND MENTAL ABILITY – II

Course Outcomes

CO1: To develop problem solving techniques.
CO2: To improve required skills to face competitive examinations.
CO3: To introduce concepts of Pie charts.
CO4: To create skills in solving real life word problems.

Programme	**: B.Sc.(Computer Science)**	**Part III**	**: Allied**
Semester	**: III**	**Hours per week**	**: 04**
Sub. Code	**:18UCSA31**	**Credit**	**: 04**

OPERATIONS RESEARCH

Course Outcomes:
CO1: To develop skills in Mathematical formulation and Solving of LPP.
CO2: To solve specialized LPP like transportation and assignment problems.
CO3: To introduce about Network problems.
CO4: To develop skills in solving real life Network problems.

Programme	**: B.Sc(IT)**	**Part III**	**: Allied**
Semester	**: III**	**Hours per week**	**: 04**
Sub. Code	**: 18UITA31**	**Credit**	**: 04**

OPERATIONS RESEARCH

Course Outcomes:
CO1: To develop skills in Mathematical formulation and Solving of LPP.
CO2: To solve specialized LPP like transportation and assignment problems.
CO3: To introduce about Network problems.
CO4: To develop skills in solving real life Network problems.

Programme	**: B.Sc. (Computer Science)**	**Part III**	**: Allied**
Semester	**: IV**	**Hours per week**	**: 04**
Sub Code	**: 18UCSA41**	**Credit**	**: 04**

NUMERICAL APTITUDE

Course Outcomes
CO1: To introduce basic concepts of Mathematics.
CO2: To develop the computational skills.
CO3: To improve required skills to face competitive examinations.
CO4: To create skills in solving real life word problems.

Programme	**: B.Sc(E & C)**	**Part III**	**: Allied**
Semester	**: IV**	**Hours per week**	**: 06**
Subject code	**: 18UELA41**	**Credit**	**: 04**

NUMERICAL METHODS
Course Outcomes

CO1: To make the students understand basic concepts of Numerical Methods.
CO2: To develop the skills in solving Simultaneous equations and Interpolations**.**
CO3: To develop the skills in solving differentiation and integration problems numerically.
CO4: To improve the ability to solve difference equations and differential equations
numerically.

Programme   : B.Sc (Chemistry)   **Part III**   **:Allied**
Semester   : V   **Hours per week : 06**
Subject Code : 17UCHA51   **Credit   : 04**

ALLIED MATHEMATICS – III

Course Outcomes:
CO1: To develop the skills in Mathematical formulation and Solving of LPP.
CO2: To learn about different techniques on solving LPP
CO3: To solve specialized LPPlike transportation andassignment problems.
CO4: To introduce about Network problems.

Programme   : B.Sc., Chemistry   **Part III**   **: Allied**
Semester   : VI   **Hours per week : 06**
Subject Code : 17UCHA61   **Credit   : 04**

ALLIED MATHEMATICS – IV

Course outcomes:
CO1: To develop skills in Bilinear transformations.
CO2: To introduce different techniques of finding Analytic functions.
CO3: To familiarize concepts of Matrices.
CO4: To teach various types of Groups through examples.

Programme   : B.Sc., Chemistry   **Part III**   **: Allied**
Semester   : III   **Hours per week : 04**
Subject Code : 18UMCA32   **Credit   : 04**

ALLIED MATHEMATICS – I

Course Outcomes:
CO1: To familiarize basic concepts of theory of equations.
CO2: To develop skills in solving equations.
CO3: To teach trigonometry and Expressing Trigonometric functions.
CO4: To develop skills in expanding Trigonometric functions.

Programme   : B.Sc., Chemistry   **Part III**   **: Allied**
Semester   : IV   **Hours per week : 04**
Subject Code : 18UMCA42   **Credit   : 04**

ALLIED MATHEMATICS – II

Course Outcomes:
CO1: To familiarize Vector differentiation.
CO2: To introduce basic statistical concepts of interpolation.
CO3: To familiarize the concepts on attributes and index numbers.
CO4: To develop skills in finding various Index numbers.