

## **Department of Computer Science**

### **Bachelor of Computer Applications**

#### **Program Outcomes**

Students who graduate with a Bachelor of Computer applications are expected to:

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
3. Communicate effectively in a variety of professional contexts.
4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.
5. Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.
6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

## Program Specific Outcomes

<b>Semester 1st</b>	
<b>BCA-16-102</b> (Fundamentals of Mathematical Statistics)	To teach the students the basic techniques of Statistical Methods. After completing this course students will be able to solve various Financial, Scientific and Engineering fields' problems
<b>BCA-16-103</b> (Computer Fundamentals and Computing Software )	The objective of this course is to familiarize students with complete Fundamentals and the packages commonly used in computing software.
<b>BCA-16-104</b> (Problem Solving Through C )	The objective of this course is to make the student understand programming language concepts, mainly control structures, reading a set of data, stepwise refinement, function and arrays. After completion of this course, the student is expected to analyze the real life problem and write programs in 'C' language to solve problems. The main emphasis of the course is on problem solving aspect.
<b>Semester 2nd</b>	
<b>(BCA-16-202)</b> (Computer Organization)	This course will enable the student to understand the basic organization of computer system and system maintenance.
<b>(BCA-16-203)</b> Fundamentals of Web Programming	This course will enable the student to build and publish web sites using HTML, DHTML, CSS, JavaScript and Dreamweaver.
<b>(BCA-16-204)</b> Object Oriented Programming using C++	Students will be able to write C++ programs using the more esoteric language features, utilize Object Oriented techniques to design C++ programs, use the standard C++ library, and explore advanced C++ techniques.
<b>Semester 3rd</b>	
<b>BCA-16-303</b> (Information System Design and Implementation )	To teach the students about the various aspects of Information Systems to be developed their analysis and design. The motive is to aware the learners about pre requisite of software development and associated paradigms. After completing this course students will be able to be analyse and design information systems.
<b>BCA-16-304</b> (Computer Oriented Numerical Methods )	To teach the students the essential techniques of Numerical Methods. After completing this course students will be able to solve various Scientific and Engineering fields' problems.
<b>BCA-16-305</b> (Data Structures )	To teach the students various data structures and the basic operations performed using them. At the end of course the student will have complete knowledge of data structures, thus will be able to use them for solving real world problems.

<b>Semester 4th</b>	
<b>BCA-16-403</b> (Software Project Management)	To teach the students important concepts, terms related to various phases during the development of a software project. At the end of the course the student will be able to apply software project management techniques to manage a software project.
<b>BCA-16-404</b> (Operating System Concepts and Linux )	The objective of the module is to create skills of students in operating systems concepts and Linux commands.
<b>BCA-16-405</b> (Database Management System)	This course aims at giving the students the insight of the underlying concepts of database management system and implement them using Database software.
<b>Semester 5th</b>	
<b>BCA-16-501</b> (Computer Networks )	The objective of the course is to: Offer knowledge about computer network related hardware and software using a <ul style="list-style-type: none"> <li>• layered architecture. Provide good understanding of the concepts of network security, wireless and various</li> <li>• emerging network technologies.</li> </ul>
<b>BCA-16-502</b> Discrete Mathematical Structure	In this paper, Students will learn and be able to acquire the knowledge of Logic, Relations and Functions. Algebraic Functions and Graph Theory will also be discussed in this paper.
<b>BCA-16-503</b> (Java Programming )	This course aims at giving student knowledge about all the programming concepts of JAVA programming language.
<b>BCA-16-504</b> (Web Application Development using PHP )	This course enables students to do web programming using PHP and MySQL. It would enable them to develop websites and other web based applications
<b>Semester 6th</b>	
<b>BCA-16-601</b> (E-Commerce)	The objective of this course is to understand the process of electronic commerce and familiarizes students with the technology involved in it.
<b>BCA-16-602</b> (Application Development using VB.Net)	The course is designed to enable the students to develop applications using event driven programming with VB.net (as front end) and accessing database at back end.
<b>BCA-16-603</b> (Computer Graphics and Multimedia Applications)	The objective of the course is to introduce basic computer graphics concepts and algorithms. The student will also learn about essential concepts used in developing multimedia applications