

## **DEPARTMENT OF BIOTECHNOLOGY**

On completion of the courses students will be able

- To Understand about the Nucleic acids
- To know the structure of nucleic acid, types of Nucleic acid and its Forms.
- To explain genome organization in Prokaryotes and Eukaryotes.
- To describe Nucleic acids Replication, Recombination and its Repair Mechanisms.
- To know how about the Interaction of Computer and Biology.
- To understand the Knowledge about Protein and Genome Databases.
- To understand about the Data Retrieval tools and its Utilization.
- Applications of Bioinformatics in drug designing and Drug Discovery.
- To understand the basic unit of the organism.
- To differentiate the organisms by its cell structure.
- To know Components of the Cell and their division.
- To explain the arrangement of Genes and their interaction.
- To describe the influence of environment on gene expression.
- To understand extra nuclear inheritance, linkage & crossing over.

## **DEPARTMENT OF BUSINESS ADMINISTRATION & COMMERCE**

The Bachelor of Commerce (B.Com.) requires three Years of full time study consisting of six semesters. The college offers honours course in Accountancy and Commerce program in Accountancy. It aims to provide students with the knowledge, tools of analysis and skills to understand and participate in the modern business and economic world.

### **Expected Program Outcome:**

1. Thorough knowledge about fundamentals of Commerce.
2. Practical exposure that would equip the student to face the modern day challenges in Commerce and Business.
3. Job oriented skills, which ensure that the students are fit for every challenging situation.
4. Ability to address various tax issues and reforms.
5. Ability to set up and run a Computerised Accounting System.
6. Competent to demonstrate the role of Accounting in society and business.
7. Skills for a Financial Accounting career applying both quantitative and qualitative knowledge.
8. Proficiency for completing various professional courses like CA, CS, CMA and others.
9. Ability to recognize the role of businessperson, entrepreneur, manager and consultant.
10. Expertise in ways to contribute towards the development of new practices and procedures of Accounting.

## **DEPARTMENT OF TEACHER EDUCATION**

- To develop the qualities of a good teacher
- To develop understanding about school of psychology
- To develop understanding about theories of learning and its educational implications
- Develop an understanding of how one's ability, interests and aptitudes are related to world of work.
- Know about the importance of developing the right attitude and values at every stage of education.
- To develop understanding about Indian Education system in social, historical and political economy context.
- Develop in the student teacher a sense of awareness about the environmental pollution, and possible hazards and its causes and remedies.
- To describe the nature, purpose, scope, areas, and types of research in education.
- Understand the concept of wholistic of health and its various dimension and determinates of health.
- To acquaint with competencies essential for the teaching profession.
- To acquaint with sense of accountability for the teaching profession.
- To develop an awareness about the recent innovations and future perspectives of education technology.
- To understand the meaning of testing, measurement and evaluation.
- To understand problems and challenges of secondary and higher secondary education in India.
- To develop skills of learners to design curriculum outline for a school programme.

## DEPARTMENT OF COMPUTER SCIENCE

BCA is a three years' full time degree course which consists of six semesters. Each even semester consists of five theory papers and two practical labs and each odd semester consists of four theory paper and one practical lab. Besides this BCA programme consists of two projects one is minor and other is major.

Minor project based on industrial training and major project is the development of any innovative project like web sites, online projects, application softwares, database projects, android applications and mobile applications.

The curriculum has been designed to give the students an in depth knowledge of various subjects related to information technology along with basic concept of management and core concept of mathematics.

This program comprising following courses:

Courses and Course outcomes:

BCA 101 Mathematics-I

BCA 102 Fundamental of Computer MS Office

BCA 103 Programming Principle and Algorithm

BCA 105 Principle of Management

BCA 107 Business Communication

BCA 201 Mathematics-II

BCA 202 Digital Electronics

BCA 203 C Programming Language

BCA 204 Organisation Behaviour

BCA 205 Financial Management and Accounting

BCA 301 C++

BCA 302 Data Structure

BCA 303 Computer Architecture

BCA 304 Statistics

BCA 305 Business Economics

BCA 401 Mathematics -III

BCA 402 Computer Graphics

BCA 403 Operating System

BCA 404 Optimisation Techniques

BCA 405 Software Engineering

BCA 501 DBMS

BCA 502 Java and Web technology

BCA 503 Networking

BCA 504 Numerical Techniques

BCA 601 E -Commerce

BCA 602 Network Security

BCA 603 System Analysis and Design

BCA 604 Knowledge Management

Digital Electronic and Computer Architecture	Ability to understand the principles and development methodologies of computer systems. Students can assess the hardware of computer systems and possess professional skills and knowledge of hardware design process
Mathematics and Numerical Analysis	Ability to apply mathematical methodologies to solve computation task. Capability to design algorithms for mathematical problems of real world. fostering strong knowledge of mathematics in students of non math background.

Software Engineering and System Analysis and Design	<p>Apply standard Software Engineering practices and strategies in real-time software project development using open-source programming environment or commercial environment to deliver quality product for the organization success.</p> <p>Learn the process and various phases of software development to become good system analysis / developer/ designer/ tester.</p>
Web Technology and Java	Design and develop computer programs/computer-based systems in the areas related to algorithms, networking, web design, and data analytics of varying complexity
Business Communication	Learn to communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports, design documentation, make effective presentations, and give and receive clear instructions.
Financial Management	<p>Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</p> <p>Ability to understand about financial activities such as procurement and utilization of funds.</p> <p>Ability to apply management principles to finance resources of the enterprise.</p>
Organizational Behavior and Principal Management Business Economics	<p>Students learn various managerial skills to improve their professional attitude.</p> <p>Ability to understand human interactions, maximise output with minimum efforts and resources, regular innovation and best possible use of available resources.</p> <p>Exhibit proficiency through latest technologies to business and personal situations in demonstratig the ability for work efficacy as a part of team and apply professional behavior and ethics.</p>
Programming Languages \ (C,C++,Java, Data Structures, Web Technology)	<p>fostering program development in professional environment. Ability to understand imperative, functional, object oriented, logic programing paradigm.</p> <p>Ability to understand communication and interaction with computers.</p> <p>Ability to think logically</p> <p>Ability to apply imagination with logics</p> <p>problem using appropriate data structure and suitable algorithm</p>
RDBMS, SQL and PL SQL	<p>Handling of RDMBS and data retrieval and storage using Structured Query Language. Creation of databases and tables from entity relationship diagram.</p> <p>Ability to understand the role of Database Administration and protection of data from unauthorised access.</p>

Fundamental of Computer System and MS Office	<p>Expertise in office automation software's , like documentation, presentation, spread sheet and data storage.</p> <p>To unable students to create, edit documents, spread sheets, power point presentation.</p> <p>Ability to understand short hand commands/ formulas.</p>
Computer Graphics and Multimedia	<p>Acquire a sound knowledge of graphics and multimedia tools like.</p> <p>Dream weaver, Photoshop, flash etc.</p> <p>Ability to understand role of images in multimedia applications.</p> <p>Foster capability to develop, design and rendering of 2D, 3D computer graphics, digital photography</p>
Network and Network Security	<p>Develop an Understanding How to secure a network and why it is so important? Acquire eligibility to be a network administration.</p> <p>Ability to learn the mechanism to reduce to risk of cyber-attack and develop a sound knowledge of cryptography and their applications.</p>
E-Commerce	<p>E-business Infrastructure, Selling and Marketing on the Web, Web Server Hardware and Software, Business-to-Business strategies, Virtual Communities, Web Portals, E-commerce Software, Payment systems, Security and User Experience.</p>
Knowledge management and database mining	<p>Acquire a sound knowledge of data ware house handling and k knowledge management.</p> <p>Ability to understand the process of creating, sharing, using and managing the knowledge and information and ensure their best use.</p>
Summary/ programme outcome	<p>BCA BCA programme transforms students into highly skilled IT specialist.</p> <p>Ability to apply theoretical knowledge into practice in real world/.</p> <p>Ability to develop standalone live projects them self.</p> <p>Ability to develop in-depth understanding of technical concepts coupled with intensive industry exposure.</p> <p>Fostering all necessary skill to get rewarding careers like:</p> <p>a software engineer, software developer, software testes, computer operation, data entry operator, animator, mobile applications, lab assistant etc. into changing world of IT.</p>