

# CSTS GOVERNMENT KALASALA JANGAREDDIGUDEM



## DEPARTMENT OF COMPUTER SCIENCE

### Program outcomes

CBCS - 4 Years Honors

**BSC (Computers)(Major)**

**&**

**BCOM (Computers)**

**(2019 – 2023 & 2023-2024)**

# Department of Computer Science

## Program Outcomes

### **Program Outcomes, Program Specific Outcomes and Course Outcomes of B.Sc (c o m p u t e r ) s as major**

It seems like you're referring to a Bachelor of Science (B.Sc.) in Computer Science or a similar program with a major in computers. A B.Sc. in Computer Science is an undergraduate degree program that focuses on the study of computers, computational processes, software development, and related technologies.

Here are some key aspects typically covered in a B.Sc. in Computer Science program:

#### 1. **\*\*Core Computer Science Courses:\*\***

- Algorithms and Data Structures: Understanding fundamental algorithms and data organization.
- Programming Languages: Learning various programming languages such as Java, C++, Python, etc.
- Computer Architecture: Studying the internal structure of computers and their components.

#### 2. **\*\*Software Development:\*\***

- Software Engineering: Principles and practices of software development.
- Database Management: Design and management of databases using SQL or other database systems.

#### 3. **\*\*Mathematics and Logic:\*\***

- Discrete Mathematics: Fundamental concepts used in computer science like logic, set theory, and graph theory.

- Calculus and Statistics: Mathematical foundations for modeling and analyzing algorithms and systems.

4. **Operating Systems:**

- Understanding the principles behind operating systems and their functionalities.

5. **Networking:**

- Basics of computer networks, protocols, and network architecture.

6. **Web Development:**

- Introduction to web technologies, HTML, CSS, JavaScript, and server-side scripting.

7. **Electives and Specializations:**

- Depending on the program, students may have the opportunity to choose elective courses or specialize in areas such as artificial intelligence, machine learning, cybersecurity, etc.

8. **Practical Experience:**

- Many programs include projects, internships, or cooperative education opportunities to provide practical experience in real-world applications of computer science.

**Program Outcomes, Program Specific Outcomes and Course Outcomes of B.Com (computer) as major :**

It's important to note that specific courses and curriculum may vary between universities, so it's advisable to check the curriculum of the particular institution offering the program.

Upon completing a B.Sc. in Computer Science, graduates are equipped with the knowledge and skills needed for various roles in the IT industry, including software development, systems analysis, database administration, network administration, and more. They may also choose to pursue further education or certifications to specialize in specific areas within the field of computer science.

It seems like you're referring to a Bachelor of Commerce (B.Com) program with a major in computers. While the standard B.Com degree often focuses on business and commerce, some universities offer specialized programs within the B.Com structure, such as B.Com with a major in computers. This kind of program is designed to provide students with a blend of business and computing knowledge.

Here are some key aspects that might be covered in a B.Com Computers program:

1. **Business Core Courses:**

- Accounting: Principles and practices of financial accounting and management accounting.
- Economics: Microeconomics and macroeconomics, understanding economic principles.
- Business Communication: Developing effective communication skills in a business context.
- Business Law: Introduction to legal principles relevant to business transactions.

2. **Computer and Information Systems Courses:**

- Introduction to Computers: Basic concepts of computer systems and applications.
- Information Systems: Understanding how information systems support business operations.
- Database Management: Principles of designing and managing databases.
- Business Applications: Learning to use business software and applications.

3. **Financial Management:**

- Financial Planning: Understanding financial statements and budgeting.

- Financial Markets: Introduction to financial markets and institutions.

4. **Marketing and Management:**

- Principles of Marketing: Basic concepts of marketing products and services.

- Management Principles: Introduction to management theories and practices.

5. **Quantitative Techniques:**

- Statistical Methods: Applying statistical tools for business analysis.

- Business Mathematics: Mathematics applications in business decision-making.

6. **Electives and Specializations:**

- Depending on the program, students may have the option to choose elective courses or specialize in specific areas like e-commerce, business analytics, or information technology management.

7. **Practical Experience:**

- Some programs may include internships, projects, or practical components to provide hands-on experience in applying business and computing knowledge.

It's important to note that the specific courses and curriculum can vary between universities and even between different B.Com programs with a focus on computers. Therefore, it's recommended to check the curriculum of the particular institution offering the program to understand the specific courses and requirements. Graduates from such programs can pursue careers in areas where business and computing intersect, such as information systems management, business analysis, or technology consulting within a business context.

## **Objective of B. Sc computers (Major) Programme :**

The objective of a Bachelor of Science (B.Sc.) in Computer Science or a similar program with a major in computers is to provide students with a comprehensive understanding of the principles, theories, and practical applications related to computer science. The program aims to equip students with the knowledge and skills necessary to pursue careers in various fields within the rapidly evolving and dynamic field of computing. Here are some common objectives of a B.Sc. Computers program:

1. **Foundational Knowledge:** Provide students with a strong foundation in core computer science concepts, including algorithms, data structures, programming languages, and computer architecture.
2. **Programming Skills:** Develop proficiency in programming languages and the ability to write, test, and debug code for software development.
3. **Problem-Solving Abilities:** Cultivate analytical and problem-solving skills essential for addressing complex issues in computer science and related domains.
4. **Software Engineering Principles:** Introduce students to the principles and practices of software engineering, including requirements analysis, design, implementation, testing, and maintenance of software systems.
5. **Mathematical and Theoretical Understanding:** Foster an understanding of mathematical concepts and theoretical principles that form the basis for computer science, such as discrete mathematics, logic, and computational theory.
6. **Database Management:** Familiarize students with the design, implementation, and management of databases, enabling them to work with data effectively.

7. **Operating Systems:** Provide insights into the structure and functioning of operating systems, preparing students to understand the software and hardware interaction in computing systems.
8. **Networking and Systems:** Introduce students to computer networks, system architecture, and the principles underlying distributed systems.
9. **Web Development:** Equip students with the skills needed for web development, including HTML, CSS, JavaScript, and server-side scripting.
10. **Practical Experience:** Offer opportunities for hands-on learning through projects, internships, or cooperative education experiences, allowing students to apply theoretical knowledge to real-world scenarios.
11. **Adaptability and Lifelong Learning:** Instill a mindset of adaptability and a commitment to lifelong learning, given the rapid advancements in technology.
12. **Ethical and Professional Conduct:** Promote ethical behavior and professionalism in computing, emphasizing the importance of responsible and socially conscious use of technology.

Upon completion of the program, graduates are expected to be well-prepared for various roles in the IT industry, such as software development, systems analysis, database administration, network administration, and more. Additionally, the program may provide a solid foundation for further education and specialization within specific areas of computer science or related fields.

## **Objective of B. Com computers (Major) Programme :**

While a Bachelor of Commerce (B.Com) degree typically focuses on business and commerce, some universities may offer specialized programs within the B.Com structure, such as B.Com with a major in computers. The objectives of a B.Com Computers program generally revolve around providing students with a combination of business knowledge and skills in the field of computers. Here are some common objectives:

1. **Business Fundamentals:** Provide students with a strong foundation in core business concepts, including accounting, economics, marketing, and management.
2. **Computing Skills:** Develop proficiency in basic computing skills, including the use of software applications, understanding information systems, and utilizing technology in a business context.
3. **Integration of Business and Technology:** Foster an understanding of how information technology and computers intersect with various business functions, enabling students to apply technological solutions to business challenges.
4. **Data Management:** Introduce students to database management principles, emphasizing the importance of effective data organization and utilization in business decision-making.
5. **E-commerce and Business Applications:** Equip students with knowledge of e-commerce principles and other business applications of information technology.
6. **Quantitative Analysis:** Develop quantitative analysis skills, including statistical methods and business mathematics, to support data-driven decision-making.



7. **Communication Skills:** Enhance communication skills, both written and oral, with a focus on business communication within a technological context.
8. **Legal and Ethical Considerations:** Introduce students to legal and ethical considerations related to the use of technology in business, promoting responsible and ethical conduct.
9. **Problem-Solving Abilities:** Cultivate analytical and problem-solving skills necessary for addressing business challenges and leveraging technology for efficient solutions.
10. **Project Management:** Provide an understanding of project management principles, emphasizing planning, execution, and control of projects within a business environment.
11. **Internship/Practical Experience:** Offer opportunities for internships, projects, or practical experiences to bridge theoretical knowledge with real-world applications in business and technology.
12. **Adaptability and Lifelong Learning:** Instill a mindset of adaptability, given the evolving nature of technology, and encourage a commitment to lifelong learning.

Upon completion of the program, graduates from a B.Com Computers program are expected to be well-equipped to pursue careers at the intersection of business and technology. Potential career paths may include roles in information systems management, business analysis, technology consulting, or positions where a solid understanding of both business and computing is valuable. The program may also serve as a foundation for further education or specialization in areas such as business analytics or technology management.