#### Program Outcomes (POs) for Bachelor of Data Science:

1. Proficiency in Data Analysis: Graduates will demonstrate a strong proficiency in data analysis techniques, including statistical analysis and machine learning algorithms.

2. Programming Skills: Graduates will possess advanced programming skills in languages such as Python, R, and SQL, allowing them to manipulate and analyze data effectively and efficiently.

3. Understanding of Data Management: Graduates will understand the principles of data management, including data collection, storage, cleaning, and integration, ensuring the quality and reliability of data for analysis purposes.

4. Domain Knowledge: Graduates will have a deep understanding of various domains such as business, healthcare, finance, or science, enabling them to apply data science techniques effectively in specific industry contexts.

5. Ethical and Legal Considerations: Graduates will demonstrate awareness of ethical and legal considerations surrounding data privacy, security, and responsible data use, adhering to professional standards and regulations.

6. Problem-Solving Abilities: Graduates will develop strong problem-solving skills, being able to identify datarelated challenges, formulate appropriate analytical approaches, and implement solutions to real-world problems.

### Course Outcomes (COs) for Bachelor of Data Science:

1. CO1: Understand the fundamental concepts, principles, and techniques of data science, including data collection, cleaning, exploration, and visualization.

2. CO2: Apply statistical methods and techniques to analyze data, interpret results, and draw valid conclusions for decision-making purposes.

3. CO3: Develop proficiency in machine learning algorithms and techniques for predictive modeling, classification, clustering, and regression tasks.

4. CO4: Explore advanced methods and tools for data mining, big data analytics, and pattern recognition to extract useful knowledge from large datasets.

5. CO5: Design and create effective data visualizations using appropriate tools and techniques to communicate insights and findings clearly.

6. CO6: Independently conceive, design, and execute a data science project, demonstrating proficiency in applying acquired knowledge and skills to solve a real-world problem.

### Program Outcomes (POs) for Bachelor of Mass Media Communication:

1. Communication Skills: Graduates will possess effective written and oral communication skills, enabling them to convey information clearly, persuasively, and creatively across various media platforms.

2. Media Literacy: Graduates will demonstrate a critical understanding of media theories, principles, and practices, allowing them to analyze media content, contexts, and effects in diverse cultural and social contexts.

3. Multimedia Proficiency: Graduates will have proficiency in multimedia production techniques, including audiovisual production, graphic design, digital editing, and web publishing, to create compelling media content.

4. Journalistic Integrity and Ethics: Graduates will adhere to professional standards of journalistic integrity, ethics, and responsibility, upholding principles of accuracy, fairness, and objectivity in their media practices.

5. Audience Engagement and Interaction: Graduates will engage with audiences effectively, understanding their needs, preferences, and behaviors across different media platforms, and adapting communication strategies accordingly.

6. Media Management and Entrepreneurship: Graduates will demonstrate knowledge of media management principles and entrepreneurial skills, enabling them to effectively manage media organizations or pursue entrepreneurial ventures in the media industry.

#### **Course Outcomes (COs) for Bachelor of Mass Media Communication:**

1. CO1: Understand key concepts, theories, and approaches in media studies, and critically analyze media texts, contexts, and ideologies.

2. CO2: Develop skills in news gathering, reporting, writing, and editing across different media formats, adhering to journalistic standards of accuracy, fairness, and impartiality.

3. CO3: Acquire proficiency in visual communication techniques, including photography, graphic design, and multimedia production, to create compelling visual narratives.

4. CO4: Explore the principles and practices of broadcasting, radio, television, and digital media production, including scripting, directing, and editing.

5. CO5: Understand the principles of public relations, corporate communication, and strategic communication planning, and apply them in creating effective communication campaigns.

6. CO6: Develop skills in managing digital and social media platforms, including content creation, curation, community management, and analytics.

7. CO7: Understand the principles of media management, entrepreneurship, and business models in the media industry, and develop skills for managing media organizations or initiating media-related ventures.

## Program Outcomes (POs) for Master of Science in Information Technology (IT):

1. Advanced Technical Proficiency: Graduates will demonstrate advanced technical proficiency in various areas of information technology, including software development, networking, cybersecurity, database management, and cloud computing.

2. Critical Thinking and Problem-Solving: Graduates will apply critical thinking and problem-solving skills to analyze complex IT problems, evaluate alternative solutions, and implement effective strategies to address them.

3. Innovative Solutions Development: Graduates will develop innovative IT solutions by leveraging emerging technologies, industry best practices, and interdisciplinary approaches to meet organizational needs and challenges.

4. Ethical and Legal Considerations: Graduates will adhere to ethical principles and legal regulations governing IT practices, respecting privacy, confidentiality, intellectual property rights, and professional codes of conduct.

5. Continuous Learning and Professional Development: Graduates will engage in lifelong learning and professional development activities to stay abreast of advancements in technology, industry trends, and evolving IT practices.

## Course Outcomes (COs) for Master of Science in Information Technology (IT):

1. CO1: Learn Advanced skills in programming languages, software design, development methodologies, and software engineering principles to design and implement complex software solutions.

2. CO2: Design, implement, and manage secure network infrastructures, including wired and wireless networks, firewalls, VPNs, and intrusion detection systems, to ensure data confidentiality, integrity, and availability.

3. CO3: Cybersecurity and Risk Management: Identify cybersecurity threats, assess risks, and implement effective security measures, including encryption, authentication, access control, and incident response, to protect organizational assets and data.

4. CO4: Database Systems and Big Data Analytics: Design and optimize database systems, perform data modeling, query optimization, and implement big data analytics solutions to manage and analyze large datasets effectively.

5. CO5: Cloud Computing and Virtualization: Understand cloud computing architectures, services, deployment models, and virtualization technologies, and design and deploy scalable, resilient, and cost-effective cloud-based solutions.

6. CO6: IT Project Management: Apply project management methodologies, tools, and techniques to plan, execute, monitor, and control IT projects, ensuring they are delivered on time, within budget, and according to specifications.

#### Program Outcomes (POs) for B.Sc. Hotel Management:

1. Hospitality Industry Knowledge: Graduates will possess a comprehensive understanding of the hospitality industry, including its history, trends, organizational structures, and operational dynamics.

2. Customer Service Excellence: Graduates will demonstrate proficiency in providing exceptional customer service, anticipating and exceeding guest expectations to ensure satisfaction and loyalty.

3. Operational Management Skills: Graduates will acquire practical skills in managing various aspects of hotel operations, including front office management, housekeeping, food and beverage service, and facilities management.

4. Culinary Arts and Food Safety: Graduates will develop culinary skills and knowledge of food preparation techniques, menu planning, food safety standards, and hygiene practices to maintain high-quality food service operations.

5. Financial Management: Graduates will understand basic financial principles, including budgeting, cost control, revenue management, and profitability analysis, to effectively manage financial resources within a hospitality establishment.

6. Marketing and Sales Strategies: Graduates will learn marketing and sales techniques specific to the hospitality industry, including promotional strategies, customer relationship management, and revenue generation strategies.

7. Event Management: Graduates will acquire skills in planning, organizing, and executing various types of events, including conferences, weddings, banquets, and corporate gatherings, ensuring smooth execution and customer satisfaction.

#### **Course Outcomes (COs) for B.Sc. Hotel Management:**

1. CO1: Understand the history, evolution, and scope of the hospitality industry, including its various sectors, career opportunities, and current trends.

2. CO2: Learn front office procedures, including guest registration, reservations, check-in/check-out processes, and handling guest inquiries and complaints effectively.

3. CO3: Develop skills in housekeeping operations, including cleaning procedures, room inspections, inventory management, and maintenance of cleanliness standards.

4. CO4: Acquire knowledge of culinary techniques, food preparation methods, menu planning, and kitchen management principles to ensure high-quality food service.

5. CO5: Understand food and beverage service procedures, including table setting, order taking, serving techniques, wine appreciation, and customer interaction.

6. CO6: Learn marketing strategies and sales techniques specific to the hospitality industry, including branding, advertising, online marketing, and revenue management.

7. CO7: Ethics and Sustainability in Hospitality: Recognize ethical issues and sustainability challenges in the hospitality industry, and develop strategies to promote responsible and sustainable business practices.

## Program Outcomes (POs) for Bachelor of Science (B.Sc):

1. Foundational Knowledge: Graduates will demonstrate a strong foundational understanding of scientific principles, theories, and methodologies across multiple disciplines.

2. Critical Thinking and Problem-Solving: Graduates will develop critical thinking skills and the ability to analyze and solve complex problems using scientific approaches and methods.

3. Research Skills: Graduates will acquire research skills, including data collection, analysis, interpretation, and presentation, applicable across various scientific fields.

4. Communication Skills: Graduates will effectively communicate scientific concepts, findings, and conclusions through written reports, oral presentations, and visual representations.

5. Quantitative and Analytical Skills: Graduates will possess quantitative and analytical skills necessary for data analysis, modeling, and interpretation in scientific research and applications.

6. Interdisciplinary Integration: Graduates will integrate knowledge and methodologies from multiple scientific disciplines to address interdisciplinary challenges and pursue innovative solutions.

7. Lifelong Learning and Adaptability: Graduates will engage in lifelong learning and professional development, adapting to new technologies, methodologies, and advancements in scientific fields.

### Course Outcomes (COs) for Bachelor of Science (B.Sc):

1. CO1: Demonstrate understanding of fundamental concepts and principles in the chosen scientific disciplines, such as physics, chemistry, biology, mathematics, etc.

2. CO2: Develop proficiency in laboratory techniques, experimental design, data collection, analysis, and interpretation relevant to the chosen scientific field.

3. CO3: Apply scientific inquiry and methodologies to formulate hypotheses, design experiments, and draw evidence-based conclusions in scientific investigations.

4. CO4: Apply mathematical and statistical tools and techniques to analyze and interpret data, solve scientific problems, and make evidence-based decisions.

5. CO5: Demonstrate information literacy skills, including the ability to access, evaluate, and utilize scientific literature, databases, and other resources effectively.

6. CO6: Apply knowledge and methodologies from multiple scientific disciplines to address interdisciplinary problems and explore interdisciplinary research opportunities.

# Program Outcomes (POs) for Bachelor of Science (B.Sc) in Computer <mark>Science:</mark>

1. Fundamental Knowledge: Graduates will demonstrate a strong understanding of fundamental concepts, theories, and principles in computer science, including algorithms, data structures, software engineering, computer architecture, and operating systems.

2. Problem-Solving Skills: Graduates will develop advanced problem-solving skills and the ability to design, analyze, and implement efficient algorithms and solutions to complex computational problems.

3. Programming Proficiency: Graduates will demonstrate proficiency in programming languages, paradigms, and development tools, enabling them to develop software applications and systems across different platforms and domains.

4. Software Development Practices: Graduates will apply software engineering principles, methodologies, and best practices in the development, testing, and maintenance of software systems, ensuring reliability, scalability, and maintainability.

5. Computer Networking and Security: Graduates will understand principles of computer networking, network protocols, cybersecurity threats, and risk mitigation strategies, ensuring secure and reliable communication and data transmission.

6. Artificial Intelligence and Machine Learning: Graduates will be familiar with concepts and techniques in artificial intelligence, machine learning, and data mining, and able to apply them to solve real-world

#### Course Outcomes (COs) for Bachelor of Science (B.Sc) in Computer Science:

1. CO1: Demonstrate proficiency in programming fundamentals, including syntax, control structures, data types, functions, and object-oriented programming concepts.

2. CO2: Understand fundamental data structures such as arrays, linked lists, trees, graphs, and algorithms for sorting, searching, and manipulation, and apply them to solve computational problems.

3. CO3: Apply software engineering principles and methodologies, including requirements analysis, design patterns, modularization, and testing, in software development projects.

4. CO4: Understand principles of operating systems, process management, memory management, file systems, and concurrency, and their role in supporting software applications and system performance.

5. CO5: Design, implement, and query relational databases using SQL, understand database normalization, indexing, transactions, and optimization techniques.

6. CO6: Understand basic concepts and algorithms in artificial intelligence and machine learning, and apply them to develop intelligent systems and analyze large datasets.

# Program Outcomes (POs) for Bachelor of Science (B.Sc) in Information Technology (IT):

1. Foundational Knowledge: Graduates will demonstrate a strong foundational understanding of information technology concepts, theories, principles, and practices.

2. Technical Skills: Graduates will possess technical skills in areas such as software development, database management, networking, cybersecurity, web development, and systems analysis.

3. Problem-Solving Abilities: Graduates will develop problem-solving abilities and the capability to apply technical knowledge and skills to analyze, design, implement, and evaluate IT solutions for real-world problems.

4. Software Development Practices: Graduates will apply software engineering principles, methodologies, and best practices in the development, testing, deployment, and maintenance of software applications and systems.

5. Database Management: Graduates will understand database design, implementation, administration, and optimization principles, and possess skills in SQL query writing, database normalization, and data modeling.

6. Networking and Cybersecurity: Graduates will comprehend computer networking concepts, protocols, architectures, and security principles, and be able to design, configure, and secure network infrastructures.

7. Web Technologies: Graduates will be proficient in web development technologies, including HTML, CSS, JavaScript, and frameworks such as React.js or Angular, and capable of building dynamic and responsive web applications.

8. Information Systems Management: Graduates will understand principles of information systems management, including requirements analysis, project management, and IT governance, ensuring alignment with organizational goals.

# Course Outcomes (COs) for Bachelor of Science (B.Sc) in Information Technology (IT):

1. CO1: Understand the fundamental concepts, components, and evolution of information technology and its role in various sectors.

2. CO2: Demonstrate proficiency in programming fundamentals, including problem-solving, algorithm development, data structures, and programming languages such as Java, Python, or C++.

3. CO3: Database Management Systems: Design, implement, and manage relational databases, including data modeling, normalization, SQL query writing, and database administration tasks.

4. CO4: Develop web applications using front-end and back-end technologies, including HTML, CSS, JavaScript, server-side scripting languages (e.g., PHP, Node.js), and databases.

5. CO5: Understand networking concepts, architectures, protocols, and technologies, and configure, troubleshoot, and secure network infrastructures.

### Program Outcomes (POs) for Bachelor of Management Studies (BMS):

1. Foundational Knowledge: Graduates will possess a strong foundational understanding of management principles, theories, concepts, and practices across various functional areas of business.

2. Critical Thinking and Problem-Solving: Graduates will develop critical thinking skills and the ability to analyze complex business problems, evaluate alternative solutions, and make informed decisions.

3. Communication Skills: Graduates will demonstrate effective oral and written communication skills, enabling them to articulate ideas, present information, and negotiate effectively in business contexts.

4. Teamwork and Leadership: Graduates will exhibit effective teamwork and leadership skills, being able to collaborate with diverse teams, motivate others, and manage conflicts to achieve common goals.

5. Ethical and Social Responsibility: Graduates will understand ethical principles and social responsibility in business, demonstrating integrity, fairness, and accountability in decision-making and behavior.

6. Global and Cultural Awareness: Graduates will possess awareness of global business environments, cultural diversity, and international business practices, enabling them to operate effectively in a globalized world.

### **Course Outcomes (COs) for Bachelor of Management Studies (BMS):**

1. CO1: Principles of Management: Understand fundamental principles and theories of management, including planning, organizing, leading, and controlling functions in organizations.

2. CO2: Marketing Management: Understand marketing concepts, strategies, and practices, including market analysis, segmentation, targeting, branding, pricing, and promotion.

3. CO3: Financial Management: Acquire knowledge of financial principles, tools, and techniques, including financial statement analysis, budgeting, capital budgeting, and financial decision-making.

4. CO4: Human Resource Management: Understand principles and practices of human resource management, including recruitment, selection, training, performance appraisal, and employee relations.

5. CO5: Operations Management: Understand operations management concepts, processes, and techniques, including production planning, inventory management, quality control, and supply chain management.

6. CO6: Business Law and Ethics: Understand legal principles, regulations, and ethical issues relevant to business operations, including contracts, torts, intellectual property, and corporate governance.

7. CO7: Entrepreneurship and Innovation: Develop entrepreneurial skills and mindset, including opportunity recognition, feasibility analysis, business planning, and venture creation.

## Program Outcomes (POs) for Bachelor of Accounting and Finance (BAF):

1. Foundational Knowledge: Graduates will possess a strong foundational understanding of accounting and finance principles, concepts, theories, and practices.

2. Financial Analysis and Reporting: Graduates will demonstrate the ability to analyze financial data, prepare financial statements, and interpret financial reports in compliance with accounting standards and regulations.

3. Managerial Decision Making: Graduates will apply accounting and financial information to support managerial decision-making processes, including budgeting, performance evaluation, and investment analysis.

4. Auditing and Assurance: Graduates will understand principles of auditing, internal control, and assurance services, and be able to evaluate and assess the reliability and integrity of financial information.

5. Taxation: Graduates will comprehend tax laws, regulations, and compliance requirements, and be able to prepare tax returns, advise on tax planning strategies, and ensure compliance with tax obligations.

6. Corporate Finance: Graduates will understand principles of corporate finance, including capital budgeting, cost of capital, capital structure, dividend policy, and corporate valuation.

7. Financial Markets and Institutions: Graduates will possess knowledge of financial markets, institutions, instruments, and regulatory frameworks, enabling them to analyze and evaluate investment opportunities and risks.

#### **Course Outcomes (COs) for Bachelor of Accounting and Finance (BAF):**

1. CO1: Financial Accounting: Understand principles of financial accounting, including recording transactions, preparing financial statements, and applying accounting standards (e.g., GAAP, IFRS).

2. CO2: Cost Accounting: Understand principles of cost accounting, costing methods, cost-volume-profit analysis, and budgeting techniques for cost control and decision-making.

3. CO3: Management Accounting: Apply management accounting techniques, such as variance analysis, relevant costing, and performance measurement, to support managerial decision-making processes.

4. CO4: Understand principles of financial management, including capital budgeting, cost of capital, working capital management, and financial risk management.

5. CO5: Comprehend tax laws, regulations, and practices applicable to individuals, businesses, and other entities, and prepare tax computations and returns accordingly.

6. CO6: Understand principles of auditing, internal control, audit planning, evidence gathering, and reporting, and apply auditing standards in assurance engagements.

7. CO7: Understand principles of corporate governance, ethical principles, and professional responsibilities in accounting and finance practices.