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Outcome Based Education (OBE) Manual




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Outcome Based Education (OBE) Manual (Certain Guidelines)

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1. OBE OVERVIEW

Outcome Based Education (OBE) A high-quality education system is built around the educational model known as Outcome Based Education (OBE). In OBE, there isn't only one set method for assessment or instruction. Every instructional activity done in OBE should assist the pupils in reaching their objectives. The roles of mentor, instructor, trainer, and/or facilitator may be modified by the faculty in accordance with the desired results.

OBE improves on conventional techniques and concentrates on the resources the Institute offers to

pupils. By creating or exhibiting results with the help of student-centered "able to do" statements, it demonstrates the success. OBE offers precise guidelines for quantifiable and verifiable results.

Why OBE?

- Recognition on a global scale and employment prospects worldwide.
- Greater visibility and reputation of the technical institution among stakeholders; more employable and creative graduates with professional and soft skills, social responsibility, and ethics.
- Enhancing the dedication and participation of all parties involved
- Giving graduates the tools they need to succeed in their line of work and reach new professional heights.
- Educating graduates about the prospects in technology development, pushing them, and preparing them for leadership roles.

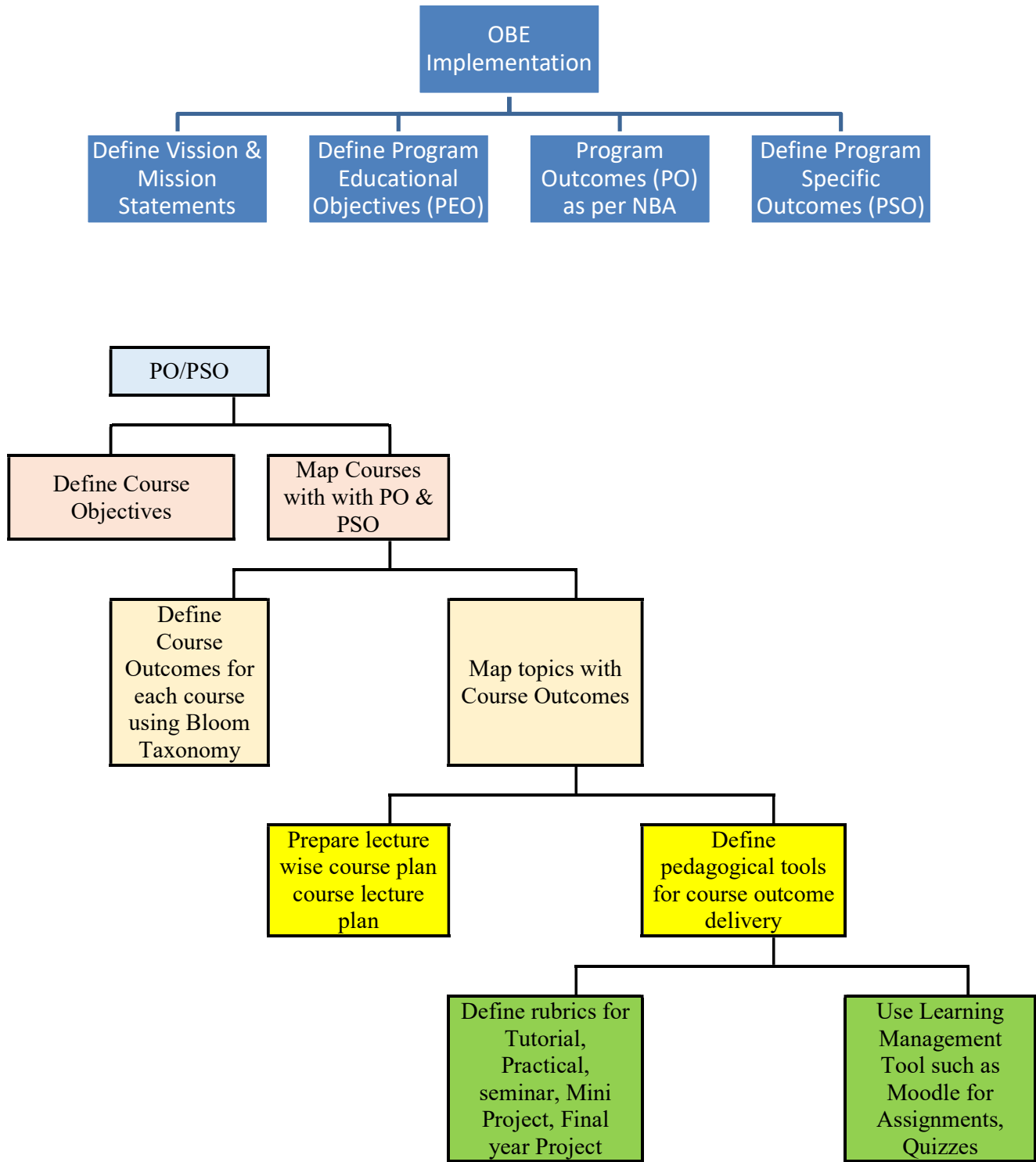
Benefits of OBE

- Clarity: By emphasizing results, a clear expectation of what must be completed by the end of the course is created.
- Adaptability: Teachers can organize their classes to meet the needs of their pupils if they have a clear idea of what has to be done.
- Comparability: OBE is comparable at the level of the individual, class, batch, program, and institute.
- Involvement: It is required of students to conduct independent study. More student participation gives them a sense of ownership over their education, and as a result, they ought to learn more on an individual basis.

India, OBE and Accreditation

India has joined the Washington Accord as a permanent signatory. In India, OBE use in higher technical education also had its start. The independent organization that promotes international quality standards for technical education in India is the National Assessment and Accreditation Council (NAAC).

2. OBE Flowchart



3. VISION, MISSION, QUALITY POLICY AND CORE VALUES OF INSTITUTE

Our Vision

TO IMPART VIBRANT, INNOVATIVE AND GLOBAL EDUCATION TO MAKE IMS THE WORLD LEADER IN TERMS OF EXCELLENCE IN EDUCATION & RESEARCH.



Our Mission

TO DEVELOP THE INSTITUTION INTO A WORLD CLASS CENTRE FOR MANAGEMENT, IT, BIOSCIENCES, JOURNALISM & INTERNATIONAL BUSINESS WHICH INSPIRES IT'S STUDENTS TO REALISE THEIR FULL POTENTIAL AND CONTRIBUTE TO THE DEVELOPMENT OF THE SOCIETY.





Program Outcomes of Masters of International Business (MIB)

Pos	POs Description
PO1	Equip students with the knowledge, skills & right attitude necessary to provide effective leadership in a global environment.
PO2	Develop the ability to critically assess business problems and provide solutions in the global arena.
PO3	Demonstrate an understanding of the fundamental and interdisciplinary business concepts and functions through analytical tools for achieving strategic business outcomes.
PO4	Develop a holistic personality for professional excellence and personal growth.
PO5	Create innovative ideas using digital skills for sustainable business opportunities.
PO6	Apply domain-based knowledge in real business setting at the global level.

Program Outcomes of Bachelors of Business Administration (BBA)

Pos	POs Description
PO1	Enumerate various concepts, terms and theories of business management in the areas of Marketing, Finance, Human Resource, Operations and Data Analysis.
PO2	Articulate necessary professional skills related to various business domains to create effective solutions for corporate dilemmas.
PO3	Exhibit proficiency in conducting research- including data collection, analysis and presentation of scenarios enabling decision making in global context.
PO4	Comprehend the significance of classical theories and their relevance to contemporary business models.
PO5	Develop a holistic personality to function effectively in teams and in individual capacity to achieve personal and professional goals.
PO6	Craft innovative ideas using digital skills for sustainable business opportunities for societal concerns.

Prof (Dr) Pooja Rastogi

Head - Department of Management



Program Outcomes of Bachelors of Computer Application (BCA)

Pos	POs Description
PO1	Computational Knowledge: To determine the solution to specified issues and needs, apply the fundamental and domain ideas of mathematics and computing.
PO2	Analysis of Problem: Ability to study, identify & analyze the computing problems using basics of computer science and application domains.
PO3	Design Solutions: Ability to define all the architectural modules of the problem along with its communication, data flow representation and propose unified solutions using emerging technologies.
PO4	Critical Thinking: Take well-informed action after recognizing the underlying presumptions that guide our thinking and behavior, evaluating(investigating) the degree to which these presumptions are true and valid, and considering our concepts and decisions (intellectual, organizational, and personal) from several angles.
PO5	Use of Modern Tools: Capacity to choose modern computer tools, methodologies, and skills required for new software solutions
PO6	Professional Ethics: Capacity to apply and commit professional ethics and cyber rules and regulations in a global world.
PO7	Life-long Learning: Develop the capacity to engage in continuous learning as a computing professional by realizing the necessity for it.
PO8	Project Management: Being able to manage projects in interdisciplinary environments requires an understanding of management and computing principles as well as computer expertise.
PO9	Communication Effectiveness: being able to understand clear documentation and compelling presentations will help to communicate with the computing community and society.
PO10	Individual & Team Work: The capacity to function as a team player or a leader in a multidisciplinary context.
PO11	Innovation and Entrepreneurship: Identifying possibilities, having a business vision, and using creative thinking are all ways to build wealth and add value for the benefit of both the individual and society.

Dr. Gagan Varshney
 Head- Department of Computer Science



Program Outcomes of M. Sc. Biotechnology

PO1.	Formulating masters of knowledge in specific subjects: to enhance the general subject knowledge and provide with the chance to tackle advanced independent research-projects on a smaller scale.
PO2	Technological Excellence: enables students to adjust to their own pace of learning. Technology- Enhanced Learning (TEL) makes even the most mundane tasks more engaging and helps students to stay focused
PO3	Expertise in Digital Communication, Digital Trade and Entrepreneurship: helps students develop their transversal skills and have an insight into the working environment of an entrepreneur
PO4	Current Literary Trends: familiarising students with the recent trends in language and literature.
PO5	Pathfinders in Scientific Exploration: enhances the development of critical thinking skills that lead to the ability to reason logically and problem-solve Creatively
PO6	Creating New Methodologies: Students learn to go beyond the conventional systems and tackle the innovative spheres of learning. Active learning methods like brainstorming, mind mapping, peer teaching, flipped classroom, etc make learning more engaging.
PO7	Practising Green Philosophy: promotes environmental sustainability through various environment-friendly means that encourage judicious use of resources thereby ecologising the philosophy of education.
PO8	Research Activity: apply Research based knowledge and methodologies to design, analyse and interpretation of data and find the solutions for complex problems by applying right tools. Provide an excellent bridge between undergraduate study and PhD research
PO9	Employability: postgraduate study boosts the career progress and chart out the career paths. It demonstrates the ability to tackle complex and challenging assessment tasks.
PO10	Dissertation and Viva Voce: To enable the students to present their arguments in comprehensible and scholarly manner and to enkindle the spirit of research in their minds

Prof (Dr) Surabhi Johari

Head - Department of Bioscience



Program Outcomes of B. Sc. Biotechnology

PO1.	Self-directed and Life-long Learning: Self-equipped to engage in independent and life-long learning in the broadest context of socio-cultural and technological changes.
PO2	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
PO3	Effective Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
PO4	Evaluative Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
PO5	Ideal Citizenship: Demonstrate empathetic social concern and equity centred national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
PO6	Ethics: Recognize different value systems including one's own, understand the moral dimensions of one's decisions, and accept responsibility for them.
PO7	Environment and Sustainability: Understand the issues of environmental contexts and sustainable development
PO8	Digital Knowledge System: Adequate training in the application of digital knowledge in higher education and workplace
PO9	Project Work and Oral Examination: Equip students to demonstrate their own work and to investigate their awareness in relation to the wider research field
PO10	Research Activity: apply Research based knowledge and methodologies to design, analyse and interpretation of data and find the solutions for complex problems by applying right tools. Provide an excellent bridge between undergraduate study and research.

Prof (Dr) Surabhi Johari

Head - Department of Biosciences



Program Outcomes of B. Sc. Microbiology

PO1	Acquired knowledge and understanding of the microbiology concepts as applicable to diverse areas such as medical, industrial, environment, genetics, agriculture, food and others.
PO2	Demonstrate key practical skills/competencies in working with microbes for study and use in the laboratory as well as outside, including the use of good microbiological practices.
PO3	Competent enough to use microbiology knowledge and skills to analyze problems involving microbes, articulate these with peers/ team members/ other stake holders, and undertake remedial measures/ studies etc.
PO4	Developed a broader perspective of the discipline of Microbiology to enable him to identify challenging societal problems and plan his professional career to develop innovative solutions for such problems.
PO5	To gain in depth knowledge in life science subjects and their application in the field of Genetic Engineering, Bioprocess Engineering, Immunology , Stem Cell Technology, Agriculture, Nano-biotechnology and Bioinformatics
PO6	Develop planning, analysing and reasoning abilities through practical courses and research project.
PO7	Expose them to advanced techniques and applications through extensive practical courses and research project.
PO8	To make students competent enough to take responsibilities in the field of Research, Industries and Academics.
	Employability: postgraduate study boosts the career progress and chart out the career paths. It demonstrates the ability to tackle complex and challenging assessment tasks
PO10	Digital Trade and Entrepreneurship: helps students develop their transversal skills and have an insight into the working environment of an entrepreneur

Prof (Dr) Surabhi Johari

Head - Department of Biosciences



IMS
GHAZIABAD
UNIVERSITY COURSES CAMPUS
Status of 12(B) by UGC

INSTITUTE OF MANAGEMENT STUDIES GHAZIABAD
(University Courses Campus)



Program Outcomes of Bachelors in Journalism & Mass Communication

PO1	To equip students with the knowledge and essential skills required for working in various media organizations with different mass communication apparatuses and varied audiences need.
PO2	To instill knowledge and fundamentals of communication in the students and hone written - spoken communication skills essential for various media platforms.
PO3	To encourage critical thinking, research aptitude, ethics and social responsibility related to media in the students.
PO4	To enhance the capacity of students to understand universal and domain – specific values of Journalism and Mass Communication.
PO5	Inculcate both generic and subject-specific skills to succeed in the field of employment and standards of life
PO6	This Programme develops scientific and practical approaches among the students which helps in their daily life

Prof. (Dr.) Anil Kumar Nigam

Head-Department of Journalism and Mass Communication

Dr. Arun Kumar Singh

5. COURSE OUTCOMES (COs)

Program Name: BBA						
COURSE OUTCOMES						
SEMESTER I						
Course Code:	Course Name	Credits				Course Outcomes (CO): After the completion of the course students will be able to:
		Credits	Lecture	Tutorial	Lab/Practical	
BBA-101	Fundamentals of Management	4	4			CO101.1: Acquaint the students with the fundamentals of management as they are practiced today and also students will be able to define and compare the concepts of management by different experts.
						CO101.2: Interpret and apply the management function Planning and also be able to learn managerial decision making skills.
						CO101.3: Examine analytical and problem solving skills, based on understanding the management concept of Organizing and also being able to learn the difference between Centralization and decentralization.
						CO101.4: Develop a working knowledge of fundamental terminology of management function: directing and coordination., also the students will be able to define the concepts of Motivation and Leadership with examples.
						CO101.5: Acquire the students with the understanding of concept Controlling and how to apply controlling techniques for managing contemporary organizations.
BBA-102	Organizational Behavior	4	4			CO102.1: Understand basic knowledge of main ideas and key theories relating to organization behaviour.

						CO102.2: Interpret the concepts of organization behavior in managing people and fostering an environment that encourages continuous learning within organizations.
						CO102.3: Illustrate skills in diagnosis and problem solving by using the learned concepts to given situations.
						CO102.4: Correlate an interest in positive attitude towards the many aspects of the behavioural patterns of human beings at work place.
						CO102.5: Evaluate organizational behavior concepts, theories, and principles to enhance the overall effectiveness, efficiency, and well-being of individuals and the organization as a whole.
						CO102.6:Formulate an integrated understanding of change in management, showcasing their ability to apply these concepts collaboratively for fostering positive organizational development.
BBA-103	Managerial Economics	4	4			CO103.1: Understand managerial economic concepts for decision-making and forward planning.
						CO103.2: Apply the concept of demand to calculate and examine the uses of demand forecasting techniques.
						CO103.3:Analyze the cost revenue function to determine the optimal price and output for the firms across sectors.
						CO103.4: Evaluate national income as an indicator of the broader standard of living and its capacity to capture shifts in overall well-being.
						CO103.5: Develop the concept of Economic Growth and Development to achieve overall benefit for the society.

BBA-104	Accounting and Financial Analysis	4	3	1		CO104.1: Understand and remember the basic concepts of accounting and financial statements.
						CO104.2: Applying accounting concepts and principles to prepare financial statements.
						CO104.3: Employ critical thinking skills to analyse financial data as well as the effects of different financial accounting methods on the financial statements.
						CO104.4: Evaluate the financial position and performance of an entity with the help of various techniques in accounting.
						CO104.5: Create effectively various financials and demonstrate the ability to communicate such data to the users of Financial statements.
BBA-105	Business Law	4	4			CO105.1: Acquire complete knowledge of the legal aspects of the laws affecting businesses.
						CO105.2: Understand the basic rules regarding different types of laws to contract used in businesses.
						CO105.3: Articulate the application skills relating to Formation and Discharge of sale of goods.
						CO105.4: Develop an analytical skill using the different case laws relating to contract entered during partnership.
						CO105.5: Evaluate negotiations, case laws and amendments under each business contract for better implementation.
BBA-106	Business Organization and Ethics	4	4			CO106.1: Identify the role of business activities in modern business and its application.
						CO106.2: Apply the theoretical concept of business unit, plant location and plant layout in their business decisions.

						CO106.3: Analyze organizational culture and the ethical practices and address a variety of ethical dilemmas at work.
						CO106.4: Evaluate the CSR, social change, and social responsibility of businesses in the present business context.
						CO106.5: Create the business plan.
SEMESTER II						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BBA-201	Quantitative Techniques for Business	4	3	1		CO201.1 Recognize and recall the different types of data in statistical analysis, methods of data classification, tabulation, frequency distribution and graphical presentation.
						CO201.2: Understand the concept of Central Tendency to analyze datasets effectively and Measures of Dispersion for data interpretation and decision-making.
						CO201.3 Apply correlation methods and regression concepts, including Introduction, Regression Lines, and Regression Equations
						CO201.4 Analyze the application of Time Series, Index Numbers, Interpolation, and Extrapolation.
						CO201.5 Evaluate principles of Probability and Probability Distributions
BBA-202	Business Communication	4	4			CO202.1: Recall fundamental business communication concepts, terminology, and principles to establish a foundational understanding of the subject
						CO202.2: Interpret written and oral business messages, demonstrating comprehension of communication strategies and techniques

						CO202.3: Apply business communication skills in practical scenarios, such as drafting effective emails, memos, and reports, showcasing the ability to implement learned concepts in a professional context
						CO202.4: Evaluate and analyze business communication scenarios, identifying effective and ineffective communication practices within organizational contexts
						CO202.5: Develop advanced business communication materials, like presentations to demonstrate the synthesis of knowledge and skills acquired throughout the course
BBA-203	Human Resource Management	4	4			CO203.1: Acquaint students with the concepts of HRM, including HRD, compensation, Training & development, e-HRM, and more.
						CO203.2: Interpret and apply acquired professional skills after learning Global and e-HRM to enhance managerial decision making abilities.
						CO203.3: Evaluate analytical and problem-solving skills through comprehension of HR theories, HR procurement, career planning and mobility concepts.
						CO203.4: Develop students with a comprehensive grasp of performance appraisal and compensation, enhancing their practical knowledge and skills.
						CO203.5: Apply the knowledge of technology in HRM to increase to effectively tackle modern challenges.
BBA-204	Marketing Management	4	4			CO204.1: Identify Market challenges & Opportunities in a dynamic Business.
						CO204.2: Apply the concepts relating to Marketing Management.

						CO204.3: Analyze the concepts relating to consumer buying behavior
						CO204.4: Explain and interpret Market Research evolution and Structure
						CO204.5: Assess and interpret the relevance of pricing and distribution strategies. CO204.6: Integrate knowledge from different business management areas to solve complex business problems
BBA-205	Business Environment	4	4			CO205.1: Identify the nature of business environment and its components.
						CO205.2: Apply the conceptual framework of Business environment and generate interest in International Business.
						CO205.3: Analyze the socio-economic implications of Liberalization, Privatization and Globalization.
						CO205.4: Evaluate the various Economic Systems and Industrial Policies.
						CO205.5: Assess various policies of the government like FEMA, EXIM, Start-ups etc. in regulation and development of business.
BBA-206	Fundamentals of Computer	4	4			CO206.1: Understand and recall the basic concepts of a computer, including its history and types and describe the significance of each computer generation in technological advancements.
						CO206.2: Apply the relationship between hardware and software in a computer system and differentiate between RAM and ROM and assess their roles in computing.
						CO206.3: Analyze the implications of digital piracy and assess management strategies and importance of cyber security laws in safeguarding digital information.

						CO206.4: Evaluating security features to protect the operating system and personal data and Develop proficiency in using MS Word for various applications and tasks.
						CO206.5: Create complex Excel spreadsheets using filters and advanced commands and develop engaging presentations using PowerPoint templates, charts, and tables.
BBA-207	Assessment on Soft Skills Based Presentation/GD					CO207.1: Identify the crucial role of communication in the workplace as the cornerstone of efficiency and maximum individual and team contribution.
						CO207.2: Impart the knowledge and practical applications of various facets of an effective leader.
						CO207.3: Enhance the self awareness of the students through self assessment and reflection.
						CO207.4: Analyze and upgrade the emotional intelligence of the students & raise awareness of business trends and technology savviness.
						CO207.5: Assess creativity skills by applying critical and innovative thinking abilities along with problem-solving skills.
SEMESTER III						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BBA-301	Advertising Management	4	4			CO301.1: Illustrate and memorize working knowledge of advertising framework and theories and also know the current trends of advertising.
						CO301.2: Interpret and relate the role of public relation and publicity in terms of communication.

						CO301.3: Extract and relate the role of advertising in sales of product and service and also role of sales promotional offers in terms of attracting and retaining customers.
						CO301.4: Examine and appraising analytical and theoretical knowledge of Print media and Broadcasting concept.
						CO301.5: Develop critical thinking and analytical ability through developing the cite of Media Planning and Strategies concepts.
BBA-302	Team Building & Leadership	4	4			CO302.1: Identify how global leadership skills contribute to leadership effectiveness.
						CO302.2: Apply the leader's role in team-based organizations and their contribution towards attainment of organizational objectives
						CO302.3: Analyze the potential contribution of outbound leadership to the development of team leadership.
						CO302.4: Evaluate the role of Leadership during crisis management and prioritize the activities during tough times.
BBA-303	Indian Economy	4	4			CO303.1: Remember the basic characteristics of Indian economy, its development and growth attributes.
						CO303.2: Understand the causes and impact of population growth and deeply evaluate the problem of unemployment in India.
						CO303.3: Discover agriculture as the foundation of economic growth and development along with the role of public and private sector in the development of the country.
						CO303.4: Analyse the problems and prospects in Indian Agriculture, Iron and Steel Industry, Sugar Industry, Cotton and Textile Industry & Large scale, small-scale and cottage industries.
						CO303.5: Evaluate the structure and functioning of Indian Banking system and Niti Aayog.

BBA-304	Customer Relationship Management	4	4			CO304.1: Comprehend basic customer relationship management and their application in business.
						CO304.2: Understand e-crm practices and their impact on emerging business practices.
						CO304.3: Devise an effective CRM Strategy affecting better customer decisions and retention.
						CO304.4: Design Sales Force Automation (SFA) principles and practices to improve sales efficiency and effectiveness, manage customer relationships, and support e-business initiatives.
BBA-305	Management Information System	4	4			CO305.1: Understand the leadership role of Management Information Systems in achieving business competitive advantage through informed decision making.
						CO305.2: Apply and synthesize business information and systems to facilitate evaluation of strategic alternatives.
						CO305.3: Analyze & interrelate how various support systems can be used for business decisions and to sustain competitive advantage.
						CO305.4: Evaluate & Express the proven value and relationship between business data, data management, and business intelligence.
						CO305.5: Recognize contemporary MIS theory and how information systems support business strategy, business processes, and practical applications in an organization.
BBA-306	Income Tax Law & Practice	4	3	1		CO306.1: Define the basics of concept of Income Tax and its implications.

						CO306.2: Understand the concept of Basis of Charge in Income Tax in business Comprehending
						CO306.3: Articulate the concepts of Heads of Income in Income Tax Knowledge
						CO306.4: Develop aggregation of Income, Set off and Carry forward of losses, deduction from gross total Income Evaluating
SEMESTER IV						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BBA-401	Consumer Behaviour	4	4			CO401.1: Understand the nature and significance of consumer behavior, demonstrating its relevance and application in marketing decisions, and distinguishing between consumer and industrial buying behavior.
						CO401.2: Apply the determinants of consumer behavior, including motivation, personality, self-concept, and external influences such as culture, subculture, social class, and reference groups, while understanding basic models of consumer behavior.
						CO401.3: Analyze the stages of the consumer decision-making process, including problem recognition, pre-purchase search, alternative evaluation, and post-purchase behavior, while understanding the concept of diffusion of innovation.
						CO401.4: Evaluate the role of consumer involvement in decision-making, and analyze its impact on customer satisfaction, recognizing consumer behavior as an interdisciplinary field.
						CO401.5: Design research methodologies to investigate online customer behavior, appreciate the diversity in consumer behavior, and evaluate the role of consumer behavior in shaping marketing strategies, with a focus on the Indian perspective.

BBA-402	Financial Management	4	3	1		CO402.1: Understand the concepts of financial management, finance functions, objectives and TVM
						CO402.2: Apply the various techniques associated with compounding, discounting and capital budgeting.
						CO402.3: Analyze the various capital structure theories, capitalization of a firm, leverage analysis, cost of capital and their implications for a company
						CO402.4: Evaluate Working Capital Management & different dividend models like Walter, Gordon's, and MM Hypothesis
						CO402.5: Apply financial management principles and digital tools for cost benefit analysis with concepts of Cost of Capital, Investment decision for sustainable business practices.
BBA-403	Production & Operation Management	4	3	1		CO403.1: Understanding of the role and importance of production and operations management in organizations.
						CO403.2: Apply the knowledge of quality control, inventory management and project management.
						CO403.3: Analyze and solve production management problems and make informed decisions to improve efficiency and effectiveness.
						CO403.4: Evaluate the impact of technology and innovation, the ethical and social decisions of operations managers on stakeholders.
						CO403.5: Assess the impact of global and cultural factors on production and operations management.
BBA-404	Sales & Distribution Management	4	4			CO404.1: Understand appropriate sales organization structures, demonstrating the ability to manage external relations

						CO404.2: Apply appropriate sales organization structures, demonstrating the ability to manage external relations
						CO404.3: Analyze personal selling theories, develop essential qualities of successful sales executives, and demonstrate proficiency in prospecting, pre-approach, and post-approach strategies.
						CO404.4: Evaluate suitable marketing channels, identify the characteristics of middlemen, and design an efficient physical distribution system to ensure timely product delivery.
						CO404.5: Design effective recruitment and selection strategies, implement continuous training programs, and exhibit leadership skills to guide and motivate a high-performing sales team.
BBA-405	Research Methodology	4	4			CO405.1: Define research in the context of business and management.
						CO405.2: Explain the importance of research problem formulation and its impact on the research process.
						CO405.3: Apply basic data analysis techniques to interpret research findings in a business context.
						CO405.4: Synthesize research findings from various sources to inform decision-making and develop new knowledge.
						CO405.5: Evaluate the potential impact of research findings on business practices.
BBA-406	Entrepreneurship & Small Business Management	4	4			CO406.1: Understand entrepreneurship theories, traits, and the roles of support institutions, showcasing the ability to recall and explain fundamental concepts

						CO406.2: Demonstrate the social benefits and incentives for small businesses in India, showcasing the ability to explain the implications and significance of government initiatives.
						CO406.3: Apply project classification to transform innovative ideas into practical projects, demonstrating the ability to use acquired knowledge in real-world scenarios.
						CO406.4: Analyze the challenges and teething problems associated with starting a small industry, showcasing the ability to break down complex issues and identify potential solutions.
						CO406.5: Evaluate the principles of project formulation, classification, and appraisal learned in the course, showcasing the ability to synthesize information and articulate a comprehensive plan for starting a small industry.
SEMESTER V						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BBA-501	Arithmetic Aptitude	4	3	1		CO501.1: Understand basic concepts of arithmetic operations.
						CO501.2: Apply Short-cut methods with time management which will be helpful to them to clear the competitive exams.
						CO501.3: Analyze the problems logically and approach the problems in a different manner.
						CO501.4: Enrich their knowledge and to develop their logical reasoning thinking ability.
						CO501.5: Create their own shortcut methods to solve the complex problems in a stipulated time.

BBA-502	Aptitude Reasoning	4	3	1		CO502.1: Define the basic concepts of logical reasoning skills and problems related to language and verbal reasoning.
						CO502.2: Understand the management of time effectively in solving various test-taking strategies with the ability of critical thinking.
						CO502.3: Apply satisfactory competency in the use of reasoning and recognise patterns and relationships.
						CO502.4: Analyse the skills to solve a variety of problems including mathematical, analytical and logical problems more effectively.
						CO502.5: Evaluate the skills of decision-making in various challenging situations with emotional & social intelligence.
BBA-503	General Business Awareness	4	4			CO503.1: Acquire knowledge on the business cultures covering all the areas of marketing, finance, Human Resource, operations and data analysis.
						CO503.2: Understanding of the diverse political environment of business across the globe.
						CO503.3: Discover the skills to solve the variety of corporate dilemmas by reviewing & comparing classical with contemporary business models.
						CO503.4: Evaluate the skills of decision-making by conducting research in various challenging situations by taking in global leader.
						CO503.5: Develop holistic personality & design innovative ideas to initiate/lead a business venture/ business segment.

BBA-504	General English	4	4			CO504.1: Identify basic grammar and vocabulary and exhibit memory of previously learned material by recalling facts, terms and basic concepts
						CO504.2: Understand key basic sentence structures and comprehend complex sentences
						CO504.3: Apply grammar and vocabulary to rearrange and create new words and sentences appropriate for professional communication
						CO504.4: Analyze sentences to identify grammatical errors and correct them.
						CO504.5: Create and rearrange sentences to form coherent paragraphs and passages with logical transitions
BBA-505 (M-1)	Rural Marketing					CO505(M-1).1: Identify rural market Challenges & Opportunities in a dynamic market.
						CO505(M-1).2: Apply the concepts relating to consumer buying behaviour
						CO505(M-1).3: Analyze the concepts relating to consumer buying behaviour
						CO505(M-1).4: Explain and interpret Rural Marketing Evolution and Structure
						CO505(M-1).5: Assess and interpret the relevance of pricing and distribution strategies.
						CO505(M-1).6: Integrate knowledge from different business management areas to solve complex business problems

BBA-505 (F-1)	Corporate Taxes - Direct & Indirect Tax	4	3	1		CO505 (F-1).1: Define the key concepts, principles, and regulatory framework of Direct & Indirect Taxation in the context of corporate entities operating in India.
						CO505 (F-1).2: Interpret and apply the provisions of the Income Tax Act, in reference to taxable income, special provisions for new business, GST transactions and Custom Laws while complying with the relevant requirements.
						CO505 (F-1).3: Devise the fundamentals of various taxation laws like Income tax, Goods and Services Tax (GST), including registration, input tax credit, tax rates, and compliance procedures.
						CO505 (F-1).4: Analyze and evaluate the impact of GST on corporate transactions and Custom Laws on imports, exports, and cross-border trade.
						CO505 (F-1).5: Appraise various laws and regulations in practical life.
BBA-506 (M-2)	Service Marketing	4	4			CO506(M-2).1: Define the core concepts of Service Marketing, including its characteristics and classification of services, differentiate between Product and Services marketing. recall the components of the Services Marketing Mix (7 P's) and recognize current marketing paradigms and challenges
						CO506(M-2).2: Understand the relationship between consumer behavior and services versus goods, comprehend the concepts of segmentation, targeting, and positioning in Services Marketing, grasp the significance of differentiation strategies and the impact of consumer expectations and perceptions on services
						CO506(M-2).3: Discover service processes, including blueprints and physical evidence, Evaluate the role of advertising, personal selling, sales promotion, and public relations in Service Marketing,

					Analyze service quality and measurement techniques and the handling of complaints
					CO506(M-2).4: Illustrate the success of service offerings through measures of service quality and customer satisfaction, assess the role of Customer Relationship Management (CRM) in Service Marketing, critically evaluate the latest issues in Service Marketing with specific reference to contemporary companies such as Uber, Ola, OYO, Swiggy, and Zomato
					CO506(M-2).5: Develop designing new services, setting service standards, and managing demand and capacity effectively, demonstrate an understanding of the role of employees and customers in service delivery, apply pricing considerations and strategies to services and analyze their effectiveness.
BBA-506 (F-2)	Financial Institutions & Investment Management	4	4		CO506(F-2).1: Understand the financial system and investment opportunities.
					CO506(F-2).2: Examining the different markets and instruments found in the financial system.
					CO506(F-2).3: Analyze the risk and return framework for enabling an understanding of the theoretical tenets of investment analysis.
					CO506(F-2).4: Evaluate the financial instruments and services as investment options and role of DFIs in investment management.
					CO506(F-2).5: Develop an understanding of portfolio management by evaluating the various instruments and their regulatory systems.

SEMESTER VI

Course Name	Credits	Course Outcomes (CO)
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Course Code:		Credits	Lecture	Tutorial	Lab/Practical	
BBA-601	Strategic Management & Business Policy	4	4			CO601.1: Identify the technique of strategic analysis and facilitate to develop strategic thinking through case analysis.
						CO601.2: Apply the theoretical concept of Top management role & Responsibilities, Business objective in their business decisions
						CO601.3: Analyze the main structural features of an industry and develop strategies that position the firm most favorably in relation to competition and influence industry structure to enhance industry attractiveness
						CO601.4: Evaluate the different stages of industry evolution and recommend strategies appropriate to each stage
						CO601.5: Create the student's ability to think strategically, understand the language of business, analyze and verbally in class discussion, critically reflect on existing theories and tools, to creatively combine or generate frameworks and tools and use them where applicable
BBA-602	Operations Research	4	3	1		CO602.1: Identifying the Operational Concepts for decision making
						CO602.2: Compare the concepts of Operations in order to take sound decision making
						CO602.3: Articulate the concepts of operations in different situations
						CO602.4: Prioritize Linear programming as an indicator of the broader concepts of Operation
						CO602.5: Develop the concept of the subject in the best possible manner.

BBA-603	Fundamentals of E-Commerce	4	4			CO603.1: Define and explain key concepts related to e-commerce, including its meaning, types (B2B, B2C, etc.), and basic requirements.
						CO603.2: Comprehend the core characteristics of the internet, including email, WWW, FTP, telnet, intranet, and extranet.
						CO603.3: Apply the role of e-commerce in building customer relationships and analyze different electronic payment systems used in online transactions.
						CO603.4: Analyze the purpose and functionalities of Electronic Data Interchange (EDI) in business communication and e-commerce transactions.
						CO603.5: Compare and contrast various payment gateways like Visa, Rupay, and Mastercards, evaluating their suitability for different types of e-commerce transactions.
BBA-604	Economic & Industrial Law	4	4			CO604.1: Elaborate the various concept of Industrial Relations.
						CO604.2: Outline the important causes and various impact of industrial disputes.
						CO604.3: Gain understanding about legal provisions of various labour legislations prevailing in India.
						CO604.4: Differentiate between each labour law and its applicability in Industry.
						CO604.5: Develop a comprehensive compliance framework for employers regarding industrial laws.
BBA-605 (M-3)	Retail Management	4	4			CO605(M-3).1: Define the main concepts in retail and merchandising management

						CO605(M-3).2: Explain the consumer behaviour for retail products and services
						CO605(M-3).3: Apply the retail applications in solving retail managerproblems
						CO605(M-3).4: Analyse problems faced by retail managers for better decision making
						CO605(M-3).5: Evaluate the effectiveness of retail decision making for solving retail problems
BBA-605 (F-3)	Cost and Management Accounting	4	3	1		CO605(F-3).1: Understand various costing systems and management systems
						CO605(F-3).2: Analyse and provide recommendations to improve the operations of organisations through the application of Cost and Management accounting techniques
						CO605(F-3).3: Evaluate the costs and benefits of different conventional and contemporary costing systems
						CO605(F-3).4: Analyze cost-volume-profit techniques to determine optimal managerial decisions
						CO605(F-3).5: Apply cost accounting methods for both manufacturing and service industry.
BBA-606 (M-4)	Digital Marketing	4	4			CO606(M-4).1: Understand importance of Digital Marketing in context of present business scenario
						CO606(M-4).2: Analyse the role of Search Engine Optimisation and Google Webmaster tool.
						CO606(M-4).3: Evaluate Promotional strategies success for brands through Social Media Marketing

						CO606(M-4).4: Create Video advertisements and Paid Campaigns on Google Adwords
						CO606(M-4).5: Assess Email Marketing, Content Marketing, Affiliate marketing and synthesize Internet Entrepreneurship.
BBA-606 (F-4)	Company Accounts	4	3	1		CO606(F-4).1: Understanding the meaning of basic terminologies, learning the fundamentals, learning company policies and technical concepts of accounting.
						CO606(F-4).2: Applying accounting concepts and principles to prepare financial statements and calculate various amounts related to ESOP, Bonus shares etc.
						CO606(F-4).3:Applying basics throughout the course for policy formation and various decision making.
						CO606(F-4).4:Evaluate the financial position and performance of an entity with the help of various techniques/parameters in accounting
						CO606(F-4).5: Create financial statements using accounting knowledge

Program Name: BCA							
COURSE OUTCOMES							
SEMESTER I							
Course Code	Course Name	Credits				Course Outcomes (CO) #	Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical		
BCA 101	Mathematics 1	4	4	-	-		
						CO101.1	Understanding the concept of Matrix, Limit and Continuity etc.
						CO101.2	Apply mathematical methods to various computing problems .
						CO101.3	Analyze mathematical reasoning and the process of constructing logical arguments.
						CO101.4	Evaluate the mathematical problems by using the various methods.
BCA-102	Programming Principle and Algorithm	4	4	-	2		
						CO102.1	Identify the concept of simple algorithms, flow chart, pseudocode,

							branching, iteration for arithmetic and logical problems.	
						CO102.2	Apply the algorithms to programs & execution (in C language).	
						CO102.3	Analysis of conditional & branching statement, iteration statement and recursion	
						CO102.4	Evaluation of a problem through functions and synthesize a complete program by using divide and conquer approach.	
						CO102.5	Create and develop complex program by using C language	
BCA-103	Computer Fundamental and Office Automation	4	4	-	2	Course Outcomes (CO) #	Course Outcomes (CO)	
							CO103.1	Identify the concepts of input and output devices of Computers.
							CO103.2	Apply the information and understand how the computers interact with other computing systems and devices.
							CO103.3	Analyze the application of an operating system and its working, and solve common problems related to operating systems.
							CO103.4	Evaluate the basic working of word processing, Spreadsheet and Presentation Graphics Software skills.
							CO103.5	Assess to use the Internet safely, legally, and responsibly

BCA-104	Principle of Management	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO104.1	Exhibit adequate verbal and non-verbal communication skills .
						CO104.2	Demonstrate effective discussion, presentation and writing skills.
						CO104.3	Increase confidence in their ability to read, comprehend, organize, and retain written information. Improve reading fluency.
						CO104.4	Write coherent speech outlines that demonstrate their ability to use organizational formats with a specific purpose; Deliver effective
						CO104.5	Develop proper listening skills; articulate and enunciate words and sentences clearly and efficiently
BCA-106	Business Communication	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO106.1	Identify the nature and objective of Technical Communication relevant for the workplace .
						CO106.2	Apply technical writing for the purposes of Technical Communication and its exposure in various dimensions.
						CO106.3	Analyse presentation skills to enhance confidence in face of a diverse audience.

						CO106.4	Evaluate application of the learning to promote their technical competence	
						CO106.5	Assess their efficacy as fluent & efficient communicators by learning the voice dynamics.	
BCA-105P	Computer Laboratory And Practical Work Of Office Automation (CFOA)	-	-	-	2	Course Outcomes (CO) #	Course Outcomes (CO)	
							CO105P.1	Identify the working of Open Office (Word processing, Spreadsheets and Presentation).
							CO105P.2	Apply the acquired knowledge on editor, spread sheet and presentation software.
							CO105P.3	Analyze the performance of various types of in built function in spreadsheet.
							CO105P.4	Evaluate the performance and presentation skills of students.
							CO105P.5	Create and handle database operations using MS-Access
BCA-107P	Computer Laboratory and Practical Work of Programming Principle & Algorithm (PPA)	-	-	-	2	Course Outcomes (CO) #	Course Outcomes (CO)	
							CO107P.1	Identify the basic concept of building block in C
							CO107P.2	Apply various operations using various operators in C
							CO107P.3	Analyze the structure of Loop and branching construct

						CO107P.4	Evaluate programming knowledge of problem solving by writing small programs
						CO107P.5	Assess the knowledge of user defined functions in C
BCA-008	ENVIRONMENTAL STUDIES	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO008.1	Identify environmental problems at local and national levels through literature and general awareness.
						CO008.2	Apply practical knowledge acquired through visits to wildlife areas, environmental institutes, and interactions with experts.
						CO008.3	Analyze key environmental issues using an interdisciplinary approach and evaluate possibilities for mitigation.
						CO008.4	Evaluate their roles and identities as citizens, consumers, and environmental actors in a complex, interconnected world.
						CO008.5	Create strategies to motivate individuals to maintain a healthy and safe environment for all, ensuring a quality life for everyone.
SEMESTER II		Credits					

Course Code	Course Name	Credits	Lecture	Tutorial	Lab/Practical	Course Outcomes (CO) #	Course Outcomes (CO)
BCA-201	Mathematics II	4	-	-	-		
						CO201.1	Understanding and problem identify by using mathematical principals
						CO201.2	Apply mathematical concept to the real - world.
						CO201.3	Analyze mathematical structure and algorithm
						CO201.4	Evaluate the accuracy and efficiency of the computational solutions
						CO201.5	Create mathematical modal for computational solution
BCA-202	C Programming	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO202.1	Understand the various concept of programming.
						CO202.2	Apply and implement the concept of pointers.
						CO202.3	Analyze and implement the concept of Strings.
						CO202.4	Evaluate the concept of stucture and union.
				CO202.5	Asses and implement the concepts of file handling.		

BCA-203	Organization Behavior	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO203.1	explain the concept of Organization Design and determine the factors that affect Organization Design.
						CO203.2	identify the components of Individual Behavior and apply the concept of Learning, Perception, Attitudes and values.
						CO203.3	explore various theories of motivation and their application in organizations and also apply these theories to practical problems in organizations.
						CO203.4	Evaluate the behavior of individuals and groups in organizations.
						CO203.5	assess how organizational change and conflict affect working relationships within organizations and demonstrate how to apply relevant theories.
BCA-204	Digital electronics and Computer Organisation	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO204.1	Identify the basic concept of Combinational Circuit (Half Adder, Full Adder) as well as arithmetic and logical operation on binary numbers
						CO204.2	Apply the concepts to design Combinational as well as Sequential circuits.
						CO204.3	Analyze the design of Input /output system and Arithmetic Logic Unit.

							Understanding of Internal Parts and working of ALU.
						CO204.4	Evaluate the design datapath and control unit of computer from its register transfer language description
						CO204.5	Assess algorithmically derive the concept of matrix multiplication on multiprocessor system, as well as the study of multiprocessor using simulator.
BCA-205	Financial Accounting & Management	4	4	-	-	Course Outcomes (CO) #	Course Outcomes (CO)
						CO205.1	Understand the fundamental concepts and objectives of financial accounting
						CO205.2	Analyze financial statements using ratio analysis, funds flow analysis, and cash flow Analysis
						CO205.3	Evaluate the long-term sources of finance for businesses.
						CO205.4	Appraise the trade-off between liquidity and profitability in Working Capital Management
						CO205.5	Develop sound receivables management practices
BCA-206 P	Computer Laboratory and Practical Work of C Programming	4	4	-		2	Course Outcomes (CO) #
						CO206.1	Course Outcomes (CO)

						CO206.2	Identify the use of array, string, pointer and functions and its process to declaration and defenition.
						CO206.3	Apply the concept of pointer with array, string and function
						CO206.4	Analyze the working of structure and union
						CO206.5	Evaluate the use of arrays, structures and user defined functions.
SEMESTER III		Credits					create programs using file handling functions.
	Course Name	Credits	Lecture	Tutorial	Lab/Practical	Course Outcomes (CO) #	
		4	3		2		Course Outcomes (CO)
BCA-301	Object Oriented Programming Using C++					CO301.1	
						CO301.2	Understand the concept of object - oriented programming to implement application.
						CO301.3	Apply the insight of class, object, and constructor.
						CO301.4	Analyze oops concepts (i.e. inheritance and polymorphism)
						CO301.5	Evaluate the concepts of exception handling.
BCA-302	Data Structure Using C & C++	4	4	-	2		Assess object-oriented file handling concepts to implement real world problems.
						CO302.1	

						CO302.2	Understand various data structures as arrays, linked lists, stacks, queues, and trees representation in memory, used by the algorithms and their common applications
						CO302.3	Apply the concept of recursion, application of recursion and its implementation.
						CO302.4	Analyze Trees, Traversal Algorithms and perform various operations on these data structures.
						CO302.5	Evaluate the computational efficiency of various sorting and searching algorithms.
BCA-303	Computer Architecture & Assembly Language	4	4	-	-		Assess the alternative implementations of data structures with respect to their performance to solve a real-world problem
						CO303.1	
						CO303.2	Understand the basic components and operation of a digital computer system.
						CO303.3	Apply the design of arithmetic & logic unit and understanding of the fixed point and floating-point arithmetic operations.
						CO303.4	Analyze the control unit techniques and the concept of Pipelining
						CO303.5	Evaluate the hierarchical memory system, cache memories and virtual memory.

BCA-304	Business Economics	4	4	-	-		Assess different ways to communicate with I/O devices and standard I/O interfaces.	
							CO304.1	
							CO304.2	Understand the basic elements of Business Economics aspects, nature and decision making.
							CO304.3	Identify Pricing policy under different market competitions and apply methods for production to minimize the cost and maximum the profit.
							CO304.4	Analyse how markets work to allocate resources and the optimal individual decision-making that underlies market outcomes.
							CO304.5	Evaluate various market structures and discuss their implications for resource allocation
BCA-305	Elements of Statistics	4	4	-			Assess the advantages and potential shortcomings of markets, discuss the conditions under which markets work	
							CO305.1	
							CO305.2	Understand the concept of Sampling, Classification, Frequency distribution, Permutation & Combination, Probability and Quality Control.
							CO305.3	To apply basic ideas of statistics as measures of central tendency, Dispersion, Permutation and Combination.

						CO305.4	Analyzing statistical data with the help of Central Tendency & Dispersion, Control Limits, tolerance limits and Control Charts.
						CO305.5	To Evaluate Nature of data, probability and random variables with various discrete and continuous probability distributions.
BCA-306P	Computer Laboratory and Practical Work of OOPS	4	4	-	-		To Create Statistical Quality Control Charts, Relative Measures of Dispersion.
						CO306P.1	
						CO306P.2	Identify real world problem and understand about class and object
						CO306P.3	Apply Object oriented approach for finding Solutions to various problems with the help of C++ language.
						CO306P.4	Analyze programming based solutions to various real-world problems using C++
						CO306P.5	Evaluate the concepts of object oriented approach towards problem solving
BCA-307P	Computer Laboratory and Practical Work of DS	2	2	-	2		create File handling program
						CO307P.1	
						CO307P.2	
						CO307P.3	Identify appropriate constructs of Programming language, coding standards for application development.

						CO307P.4	Apply programming skills for solving problems.
						CO307P.5	Evaluate the problems involve in graphs, trees and heaps.
SEMESTER IV		Credits					Create Algorithms for solving problems like sorting, searching, insertion and deletion of data.
Course Code:	Course Name	Credits	Lecture	Tutorial	Lab/Practical	Course Outcomes (CO) #	
BCA-401	Computer Graphics & Multimedia Application	4	4	-	2		Course Outcomes (CO)
						CO401.1	
						CO401.2	Understand the basics of computer graphics, various graphics systems and applications of computer graphics.
						CO401.3	Apply various algorithms for scan conversion and filling of basic objects and their comparative analysis.
						CO401.4	Analyze the geometric transformations on graphics objects and their application in composite form.
						CO401.5	Evaluate the scene with different clipping methods and its transformation to graphics display device.
BCA-402	Operating System	4	4	-	2		Create projections and visible surface detection techniques for display of 3D scene on 2D screen & create multimedia projects.
						CO402.1	

						CO402.2	Understand the basic components of operating system and their functions	
						CO402.3	Apply algorithms for deadlock problems, file system concepts & storage structures and process concepts on different processes by using scheduling algorithms.	
						CO402.4	Analyze different memory management techniques, process coordination and disk scheduling algorithms	
						CO402.5	Evaluate the requirement for process synchronization and coordination handled by operating system.	
BCA-403	Software Engineering		4	4	-	-	Create (Formulate) the solutions to schedule the real time applications	
							CO403.1	
							CO403.2	Understand and Identify various software characteristics and compare different software Development Models
							CO403.3	Apply the contents of a SRS and implement basic software quality assurance practices to ensure that design, development meet or exceed applicable standards
							CO403.4	Analyse various methods for software design
							CO403.5	Evaluate the design testing strategy for software systems, employ techniques such as unit testing, Test - driven development and functional testing

BCA-404	Optimization Techniques	4	4	-	-	Assess the software development process independently as well as in teams and make use of Various software management tools for development, maintenance and analysis.		
							CO404.1	
							CO404.2	Understand the Concepts of LPP, Queuing Theory, Replacement Theory, Inventory Theory and Job Sequencing
							CO404.3	Apply optimization techniques in solving LPP, Queuing Theory, Replacement Theory, Inventory Theory and Job Sequencing
							CO404.4	Analyze different solution approach for an optimization problem
							CO404.5	Evaluate Optimal Solutions.for Replacement, and LPP Problems
BCA-406	Mathematics III	4	4	-	-	Create (Formulate) Optimal Solutions for real life Problems.		
							CO406.1	
							CO406.2	Understanding and problem identification by using mathematical principles.
							CO406.3	Apply Mathematical Concepts and methods to develop efficient and optimize solution.
							CO406.4	Analyze complex mathematical problems and derive appropriate solution.

						CO406.5	Evaluate the effectiveness of various methods to solve computational problems.	
BCA-405P	Computer Laboratory and Practical Work of Computer Graphics & Multimedia Application	4	4	-	-		Create innovative mathematical models for further solution.	
							CO405P.1	
							CO405P.2	Understand the appropriate Programming User-interfaces
							CO405P.3	Apply the Concepts of 2D & 3D object representation & transformation
							CO405P.4	Analyze various scan & clipping algorithms
						CO405P.5	Evaluate the Implementation of 2D object's visibility detection & viewing	
SEMESTER 5		Credits					Create the multimedia project based on learned concepts	
Course Code:	Course Name	Credits	Lecture	Tutorial	Lab/Practical	Course Outcomes (CO) #		
BCA-501	Introduction to DBMS	4	4	-	2		Course Outcomes (CO)	
							CO501.1	
							CO501.2	Understand knowledge of database for real- life applications.
							CO501.3	Apply query processing techniques to automate the real - time problems of Database
					CO501.4	Analyze and solve the redundancy problem in database tables using normalization.		

						CO501.5	Evaluate and understand the concepts of transactions, their processing so they will be familiar with broad range of database management issues including data integrity, security and recovery		
BCA-502	Java Programming and Dynamic Webpage Design	4	4	-		2	Create a small database project using database tools.		
								CO502.1	
								CO502.2	Understand the concept of packages, multi-threading,exception handling and JDBC.
								CO502.3	Apply the knowledge of JSP,EJB and ODBC in making dynamically databse connected web pages.
								CO502.4	Analyze how data is being retrieved from database and forms using various RMI Layers.
						CO502.5	Evaluate the reports and results generated by the software being designed.		
BCA-503	Computer Network	4	4	-		-	Create various softwares using swings and Jsp.		
								CO503.1	
								CO503.2	Understand basic concepts, OSI reference model, services and role of each layer of OSI model and TCP/IP, networks devices and transmission media, Analog and digital data transmission

						CO503.3	Apply channel allocation, framing, error and flow control techniques.	
						CO503.4	Analyze Implementation of functions of Network Layer i.e. Logical addressing, subnetting & Routing Mechanism.	
						CO503.5	Evaluate of Transport Layer function i.e. Port addressing, Connection Management, Error control and Flow control mechanism.	
BCA-504	Numerical Methods		4	4	-		Create Implementation of functions offered by session and presentation layer and their Implementation. Also understand the different protocols used at application layer i.e. HTTP, SNMP, SMTP, FTP,	
							CO504.1	
							CO504.2	Understand common numerical methods and how they are used to obtain approximate solutions.
							CO504.3	Apply numerical methods to obtain approximate solutions to mathematical problems.
							CO504.4	Analyse the accuracy of common numerical methods.
							CO504.5	Evaluate critical thinking skills in assessing the suitability of numerical methods for specific problems.
BCA-505P	Computer Laboratory and Practical Work of DBMS		2	2	-		2	Create efficient, well-documented and present numerical results in an informative way.

				CO505P.1			
				CO505P.2	Understand and identify various queries and their execution		
				CO505P.3	Apply SQL DML/DDL commands to populate and query a database		
				CO505P.4	Analyze the integrity constraints on a database		
				CO505P.5	Evaluate PL/SQL including stored procedures, stored functions, cursors, packages		
BCA-506P	Computer Laboratory and Practical Work of Java Programming and Dynamic Webpage Design			CO506P.1	Create a simple database system and demonstrate competence with the fundamental tasks involved with modelling, designing, and implementing a DBMS.		
				CO506P.2	Understand the concept of classes, objects, members of a class and relationships among them needed for a specific problem.		
				CO506P.3	Apply SQL DML/DDL commands to populate and query a database using Jdbc-Odbc.		
				CO506P.4	Analyze the implementation of Applet and packages		
				CO506P.5	Evaluate the outputs of RMI, EJB and JSP .		
BCA-507MP	Minor Project	4	-	-	4		Create dynamic web pages in JSP
						CO507MP.1	

			CO507MP.2	Understand the components used in an Online Project with advanced technologies of their choice.
			CO507MP.3	Apply the Concepts & Technology to match with the SRS.
			CO507MP.4	Analyze the gaps between SRS & Project Outcome to develop a project professionally.
			CO507MP.5	Evaluate the Project Deployment and Maintenance.
				Access the Project for being Scalable and of Public Use.
			CO508ST.1	
			CO508ST.2	Understand the knowledge, attitudes, and perceptions essential for developing a professional identity through on-the-job experience.
			CO508ST.3	Apply theoretical knowledge in real-world settings through supervised professional experiences.
			CO508ST.4	Analyze the operations of authentic organizations to gain insight into their functioning.
			CO508ST.5	Evaluate the interconnections between various functions and departments within organizations.
SEMESTER 6	Viva-Voice on Summer Training	Credits		Create an encompassing perspective of business organizations, assessing them in their entirety.

Course Code:	Course Name	Credits	Lecture	Tutorial	Lab/Practical	Course Outcomes (CO) #	
BCA-601	Computer Network Security	4	4	-	-		Course Outcomes (CO)
						CO601.1	
						CO601.2	Understand the concept of cryptography with the different Network Models.
						CO601.3	Apply different network security, Authentication protocols and their application.
						CO601.4	Analyze IP Security that can be used to connect different network
					CO601.5	Evaluate the concept of Secure socket layer ,TCP layer and architecture of SNMP server.	
BCA-602	Information System: Analysis Design & Implementation	4	4	-	-	CO602.1	Assess the functioning of intruders, viruses, firewall and threats.
						CO602.2	Understand the concept of logical design, physical design, test planning, implementation, planning and performance evaluation, communication, interviewing
						CO602.3	Apply specific Model.
						CO602.4	Analyze dataflow diagram, quality metrics,package evaluation and acquisition.
						CO602.5	Evaluate design of output and control, file design/database design, process, user interface design.

BCA-603	E-Commerce	4	4	-	-	CO603.1	Assess object modeling, dynamic modeling and functional object system for implementation.
						CO603.2	Understand the recent trends in e-commerce to equip students with up-to-date knowledge.
						CO603.3	Apply skills in website management relevant to industry needs.
						CO603.4	Analyze the nature and current trends of e-commerce for comprehensive understanding.
						CO603.5	Evaluate the significance of advertising and marketing within the realm of e-commerce.
BCA-604	Knowledge Management	4	4	-	-	CO604.1	Create assessments of e-commerce models and identify the prerequisites for initiating and maintaining e-business sites.
						CO604.2	Understand the different knowledge management concepts.
						CO604.3	Apply knowledge management concepts in data mining and knowledge discovery.
						CO604.4	Analyze and understand the use of one of the approaches of MIS i.e. Executive information system for developing the strategic information in an organization.
						CO604.5	Evaluate different approaches of MIS and take business decisions for different organizations. CO5: Analyze the

						relationship between information, tacit knowledge, explicit knowledge and organizational knowledge.
BCA-605P	Major Project	4	-	-	4	CO605P.1 Assess the relationship between information, tacit knowledge, explicit knowledge and organizational
						CO605P.2 Understand the components used in an Online Project with advanced technologies of their choice.
						CO605P.3 Apply the Concepts & Technology to match with the SRS.
						CO605P.4 Analyze the gaps between SRS & Project Outcome to develop a project professionally.
						CO605P.5 Evaluate the Project Deployment and Maintenance.
						CO605P.6 Access the Project for being Scalable and of Public Use.

Program Name: BIOTECHNOLOGY						
COURSE OUTCOMES (COs)						
B.Sc. (H) BIOTECHNOLOGY I Year						
Course Code	Course Name	Credits Per Week				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
B.Sc. BT101	Biochemistry	2	2	0	2	CO101.1 : Identify the basic concept, structure, chemical nature, types and properties of biomolecules in the cell.
						CO101.2 : Apply the depth knowledge of classification of different biomolecules.
						CO101.3 : Analyze concept of metabolism in aspect of biomolecules.
						CO101.4 : Evaluate the concept of microbes, industries and environment in biotechnology
						CO101.5: Assess the role of enzymes, vitamins in living organisms.
B.Sc. BT102	Biophysics	2	2	0	2	CO102.1 : Understand of the entire fundamentals of Biophysics
						CO102.2 : Apply the practical role and importance of various aspects of the subject.
						CO102.3 : Analyze biophysics as an interdisciplinary research field.
						CO102.4 : Evaluate and understand the nuclear interactions of biological system.
						CO102.5: Apply the importance of the nature of biological materials
B.Sc. BT103	Cell Biology	2	2	0	2	CO103.1 : Analyse the origin of living organisms
						CO103.2 : Create the differences between Eukaryotic & Prokaryotic cells.
						CO103.3 : Evaluate the process of cell cycle through cell division.
						CO103.4 : Apply the cell signalling process in living system.
	Microbiology	2	2	0	2	CO104.1 : Identify the various classifications of microbes

B.Sc. BT104						CO104.2 : Apply the concept of various microbial strains and their growth pattern
						CO104.3 : Analyse the application of different microbes from industrial point of view
						CO104.4 : Evaluate disease causing micro-organisms.
						CO104.5 : Assess various methods of sterilization and culture growth.
B.Sc. BT105	Genetics	2	2	0	2	CO105.1 : Able to impart knowledge about the fundamentals of genetics.
						CO105.2 : Summarizing about various essential classical and contemporary approaches and methods to study chromosome, genes and genome.
						CO105.3 : Discussing linkage and crossing over and their significance in mapping.
						CO105.4: Introducing different patterns gene transfer and mode of inheritance observed across biological system.
						CO105.5: Aanalying knowledge of multiple alleles,chi-square test & hardy-Weinberg law.
B.Sc. BT106	Instrumentation and Bio-Analytical Techniques	2	2	0	2	CO106.1 : Able to provide a comprehensive understanding of different techniques in biotechnology.
						CO106.2 : Provide students with technical and analytical skills with general understanding of the standard laboratory tools, procedures and process of biological research.
						CO106.3 : Understanding of Isolation, purification and characterization of biological samples using sophisticated analytical experimental techniques.
						CO106.4 : Learning the importance of radioisotope & autoradiography in molecular biology.
						CO106.5 : Able to provide scientific understanding of instrumentation, operation, interpretation of data and its applications
B.Sc. BT107	BIOMATHEMATICS	2	2	0	2	CO107.1 : To Conceptual understanding with unified knowledge.
						CO107.2 : To knowledge of general mathematical principles.

						CO107.3 : To Knowledge of theoretical as well as practical concepts of mathematics. CO107.4 : To discuss problem posing and solving.
B.Sc. BT108	Chemistry	2	2	0	2	CO108.1 : Understanding the entire concept of Chemistry. CO108.2 : Summarise the concept of elements placed on the periodic table due to similar properties. CO108.3 : Analyze the knowledge of the structure, bonding and hybridization of different compounds and ionic properties. CO108.4 : Understanding the core criteria of compounds of elements belonging to s, p and noble gases. CO108.5: Evaluation of heterogeneous catalytic chemical kinetics.
B.Sc. BT109	Biodiversity	2	2	0	2	CO109.1 : Understanding the basic concept of biodiversity of species richness, abundance and pattern of diversity of flora and fauna. CO109.2 : Identification of the element of biodiversity of ecosystem diversity, species diversity and genetic diversity CO109.3 : Analyze about the global and geographical pattern of biodiversity for measuring, cataloguing and discovering the species. CO109.4 : Evaluation of the threats of biodiversity and problems in controlling trading of species. CO109.5 : Assessment the effect on environment due to In-situ and Ex-situ conservation of species.
B.Sc. (H) Biotechnology II Year						
Course Code	Course Name	Credits Per Week				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
B.Sc. BT201	Fundamentals of Computer & Bioinformatics	2	2	0	2	CO201.1 : Understanding the role of computers and network on the biological sciences. CO201.2 : Analyzing the various networking process cof copmuters and their role.

						CO201.3 : Understand the basic concept, scope and application of Bioinformatics in biological sciences.
						CO201.4 : Evaluation of various biological databases in bioinformatics.
						CO201.5: Analyzing the biological data through bioinformatic tools and technique.
B.Sc. BT202	Bioenergetics and Biomembranes	2	2	0	2	CO201.1 : Identify the basic concept and laws of thermodynamics and their role in the cell.
						CO202.2 : Apply the knowledge of metabolic activity in cell and the concept of metabolism in aspect of biomolecules.
						CO202.3 : Analyze the breakdown of molecules of biomolecules.
						CO202.4 : Evaluate the biomembranes and types and their role in cell.
						CO202.5: Assess the role of transport in aspect of cell.
B.Sc. BT203	Molecular Biology	2	2	0	2	CO203.1 : Identify the mechanisms that underpin human inheritance
						CO203.2 : Understand chemical and molecular processes that occur in and between cells.
						CO203.3 : Apply of the role of molecular factors in health and disease.
						CO203.4 : Evaluate the role of gene in regulation in living organisms.
						CO204:5: Analyze the genetic material degradation
B.Sc. BT204	Molecular Genetics & Cytogenetics	2	2	0	2	CO204.1 : Introducing the fundamentals of Molecular and Cytogenetics to the students.
						CO204.2 : Describing the concepts associated with chromosomal aberrations and how these can result in changes at phenotypic & genotypic level.
						CO204.3 : Explaining the role of numerical aberrations in evolution of crops and chromosome mapping.
						CO204.4 : Understanding plant breeding and their role in crop improvement.
						CO204.5: Summarizing molecular markers and their significance.

B.Sc. BT205	IMMUNOTECHNOLOGY & IMMUNOLOGY	2	2	0	2	CO205.1 : Describe the components of our immune system
						CO205.2 : Analysis the assays techniques in immunology
						CO205.3 : Evaluate the application of antibodies in treatment of diseases
						CO205.4 : Understand the Immune system disorders
						CO205.5: Assess the immunology concept for living organisms.
B.Sc. BT206	Recombinant DNA Technology	2	2	0	2	CO206.1 : Understanding the gene cloning and tools and techniques.
						CO206.2 :Constructing cDNA library by the manipulation of DNA using DNA Modifying enzymes.
						CO206.3 : Characterising genes using recombinant DNA technology with the help of high throughput applications like DNA sequencing
						CO206.4 : understanding Gene expression assays for targeted genes.
						CO206.5 : understanding the site directed mutagenesis to characterize targeted DNA.
B.Sc. BT207	Animal physiology	2	2	0	2	CO207.1 : Understand the fundamental principles of animal physiology.
						CO207.2 : Analyze the structure and functions of important physiological systems including the cardio-respiratory, digestive, renal, reproductive and metabolic systems.
						CO207.3 : Apply the principles to be incorporated into the adaptations of different animal groups.
						CO207.4 :Evaluate the application about different patterns of animal and human behaviour.
						CO207.5 : Assess the types of immune cells, their role in preventing the disease.
	Plant physiology	2	2	0	2	CO208.1 : Identify the PLANT PHYSIOLOGY

B.Sc. BT208						CO208.2 : Apply the PLANT PHYSIOLOGY techniques.
						CO208.3 : Analyze the PLANT PHYSIOLOGY system and its relation to various infectious diseases.
						CO208.4 : Evaluate the different growth techniques in plants.
						CO208.5 : Assess plant growth and germination
B.Sc. BT209	Enzymes and Enzyme Technology	2	2	0	2	CO209.1 :Understand the basic concepts of enzymes and their functions.
						CO209.2 :Assess the students learn about isolation and purification of enzymes.
						CO209.3 : Identify the different approaches of enzyme engineering that can be utilized in various fields of biological sciences
						CO209.4 : Apply the concepts of enzyme applications.
B.Sc. (H) Biotechnology III Year						
Course Code	Course Name	Credits Per Week				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
B.Sc. BT301	Plant Biotechnology	2	2	0	2	CO301.1 : Understand the entire concepts of Plant Biotechnology.
						CO301.2 : Evaluate the role and influence of Plant Biotechnology techniques on human welfare.
						CO301.3 : Assess and select the appropriate applications, concepts and techniques to suit specific production of crop varieties.
						CO301.4 : Identify the technology of transgenic plants
						CO301.5 : Apply the biotechnology to transfer the gene in plants
B.Sc. BT302	Animal Biotechnology	2	2	0		CO302.1 : To understand the Basic concepts of Biotechnology, bacterial and animal cloning.
						CO302.2 : To understand the role of Biotechnology for human welfare in production of recombinant products at industrial level and production of transgenic varieties.

						CO302.3 : To provide a better understanding of Biotechnology to the student and assist to get novel ideas for human welfare.
						CO302.4 : To understand the tissue engineering process.
B.Sc. BT303	Molecular Virology	2	2	0	2	CO303.1 : Identify the nature of viruses, including their structure, replication and classification. CO303.2 : Analyze how infection and replication of viruses is constrained by the viral genome and host immune defenses. CO303.3 : Apply the methodological approaches in diagnostic investigation of infectious diseases and the epidemiology of infections. CO303.4 : Evaluate the role of various serological and molecular methods in virus identification and detection. CO303.5 : Assess the organization of genome in viruses.
B.Sc. BT304	NANOBIOTECHNOLOGY	2	2	0	2	CO304.1: Able to understand basics of nanotechnology and their applications. CO304.2 : Able to know the preparation and characterization of appropriate nano materials with precision. CO304.3 : The course introduces to the new and novel applications to solve biomedical problems through nanotechnology CO304.4 : To understand the role of immunology in field of nanotechnology. CO304.5 : Able to understand the role of immunology in the field of nanotechnology.
B.Sc. BT305	Environmental Biotechnology	2	2	0	2	CO305.1 : Evaluate the concept of renewable and non renewable sources along with their impact on environment CO305.2 : Apply the utility of green energy fuel and their applications CO305.3 : Analyse the treatment of industrial effluents by microbes: a conventional approach

						CO305.4 : Enumerate the environmental impact on transgenic organism
B.Sc. BT306	Industrial Biotechnology	2	2	0	2	CO306.1 : To understand the concept of bioassessment of fermentation CO306.2 : To explore about various kinds of bioreactors in brief and their working principle and applications CO306.3 : To study about numerous industrial enzymes: production & applications CO306.4 : To understand the students will get to know about the utilization of industrial enzymes in dairy and food industry
B.Sc. BT307	Genomics and Proteomics	2	2	0	2	CO307.1Able to understand the concept of Genomics and Proteomics CO307.2Able able to understand the practical role and importance of various techniques of Genomics and Proteomics in various biological experiments CO307.3 :Able to assess and select the appropriate applications, concepts and techniques to suit specific experiment CO307.4Able to understand and utilize algorithms in genomics and proteomics. CO 307.5Explore various Proteomics Strategies and their applications
B.Sc. BT308	biosafety, IPR and entrepreneurship	2	2	0	2	CO 308.1 : Identify specialized theoretical knowledge of biosafety, IPR and entrepreneurship CO308.2 : apply knowledge about patent in India, licensing and bioethics for transgenes. CO308.3 : Analyze the issues related to biosafety, IPR and entrepreneurship development which can be related to research in new or interdisciplinary fields. CO308.4 : Evaluate the role of patent and its rule and regulation. CO308.5 : Assess the bioethical issues related to GMO's.

B.Sc. BT309	Recent trends in biotechnology	2	2	0	2	CO309.1 : Identifying and analyzing the current trends in biotechnology
						CO309.2 : Describing common methodologies used in biotechnological processes
						CO309.3 : Communicating depth knowledge on topics covered in the area of advanced biotechnology
						CO309.4 : Understanding the different techniques like seed termination technology bioremediation.
						CO309.4 : Understanding the Application of biotechnology for biofuels: transforming biomass to biofuels
B.Sc. BT310	Transcriptomics and Metabolomics	2	2	0	2	CO310.1 Able to understand the concepts of Transcriptomics and Metabolomics
						CO310.2 Able to analyse the metabolomics and its engineering.
						CO310.3 Able to understand the students will learn metabolic engineering and how it is used at industrial level
						CO310.4 Explore the approaches to analyse metabolome
						C 310-.5 Student will learn various techniques used for transcriptomics analysis
B.Sc. BT311	Bioprocess Engineering and Technology	2	2	0	2	CO311.1 : understanding the basic principle of biochemical engineering
						CO311.2 : Identify the significance of aeration and agitation for synthesis of bioproducts and modes of operation of Fermenter.
						CO311.3 : Explain the downstream processing and subsequent purification of a target therapeutic protein.
						CO311.4 : Elaborates the quality of food products and changes in components during food preparations.
						CO311.5: Assess the mechanism and application of enzyme.

Program Name: BAJMC						
COURSE OUTCOMES						
SEMESTER I						
Course Code:	Course Name	Credits				Course Outcomes (CO): After the completion of the course students will be able to:
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-101	Basics of Mass Communication and Journalism	4	4			CO101.1 – Students will understand the elements, types, different aspects and importance of communication.
						CO101.2 - Students will get the knowledge and application skills of initial theories and models of communication in media industry.
						CO101.3 – Students will get to know the process of communication in different situations as well as different theories of communication which are applied or used in various scenarios.
						CO101. 4 - Students will get to know about Journalism its functions and the origin and development of Indian press.
						CO101. 5 – Students will learn about various Duties and Responsibilities of Journalist also Values and Ethics of Journalism.
BAJMC-102	General Hindi	4	4			CO102.1: शुद्ध हिंदी भाषा को लिखना एवं बोलना सीखना ।
						CO102.2: विभिन्न शब्दों को समझ विकसित कर सही वाक्यांश का निर्माण करना ।
						CO102.3: औपचारिक एवं अनौपचारिक पत्रों में अंतर समझ कर उनकी सही संरचना को समझना ।
						CO102.4: हिंदी में विभिन्न प्रकार के निबंध, कहानी, फीचर एवं विश्लेषण की संरचना को समझ कर उनके लेखन का कौशल विकसित करना ।

						CO102.5: अंग्रेजी भाषा से हिंदी भाषा में सही अनुवाद करने का कौशल विकसित करना ।
BAJMC-103	Digital Journalism	4	4			CO103.1: Students will understand the basics of digital journalism and formal communication.
						CO103.2: Students will be able to gain knowledge and skill about effective professional presentations to audiences.
						CO103.3: A deep and practical understanding of the processes will be evolved about newspapers and newsportals.
						CO103.4: Students will be able to create and design digital media products.
BAJMC-104	Advertising and Public Relations	4	3	1		CO104.1: Prepare the students to understand basic concept of advertising and public relation
						CO104.2: To know about the Advertising Strategies and ethics.
						CO104.3: Student will be able to Visualization and layout procedures.
						CO104.4: students will be able to create Copy for different media platform.
						CO104.5: students will able implement Advertising and Public Relation research and legal concepts in their professional life.
BAJMC-105	Computer for Mass Media (Course Related Practical-Viva)	4	4			CO105.1: Students will able to understand the basics of computer History and Theory.
						CO105.2: Students will apply the knowledge in MS WORD to make documents.

						CO105.3: Students will analyze the working of word carefully to perform mail merge etc.
						CO105.4: Students will able to create effective power point presentations.
						CO105.5:Students will be able to access ICT in terms of Journalism and Mass Communication.
SEMESTER II						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-201	Print Media (Reporting and Editing)	4	4			CO201.1:Students will understand the concept of News,Headlines and Reporting.
						CO201.2:Students will have knowledge,skill and understanding of reporting and the functions of newsroom.
						CO201.3:Students will be able to understand the ethics of journalism and implement it in writing and translation of news for Print Media.
						CO201.4: Students will be able to know and implement the tools,editing symbols, layout and designing.
						CO201.5:Students will able to understand the organisational structure of print media.
BAJMC-202	General English	4	4			CO 202.1: Students will understand the basic english communication with respect to error free usage of grammer.
						CO202.2:Students will have a habit of reading, thereby, absorbing profound ideas, learning appropriate expressions and enhancing vocabulary.
						CO 202.3: Students will learn the formal communication with regards to communicate effectively and appropriately in real life situation.
						CO 202.4:Students will know the importance of ethical, moral, national and cultural values in writing.

						CO 202.5: Students will be competent in the use of English Language in different types of journalistic writing and translation.
BAJMC-203	Mass Media Writing Skills	4	4			CO203.1: Students will have understanding about different types of media writing. CO203.2: Students will develop a skill of feature writing and its types also learn about radio and television writing in detail. CO203.3: Students will be able to differentiate about editorial writing and writing about different genres in newspapers and learn about the nuances of writing. CO203.4: Students will be competent of technical writing for media with following the ethics and fulfilling social responsibility.
BAJMC-204	Photo Journalism	4	4			CO204.1. Students will come to know about the basics of Photography. CO204.2. Students will gain skills and knowledge about different types of Photography. CO 204.3. Students will be able to use Photo Editing Softwares. CO204. 4. Students will develop a strong understanding of photography techniques, including composition, lighting, exposure, and camera operation. CO 204.5. Students will be competent in the usage and implementation of acquired practical skills of Photography ethically.
BAJMC-205	Media Related Software (Course Related Practical – Viva)	4	4			CO205.1 Students will know about the basics of media related softwares.

						CO205.2 Students will gain skill and knowledge about usage of audio-video Content.
						CO205.3 Students will be able to prepare graphics for different media.
						CO205.4 Students will able to understand the usage of photo editing ethically.
						CO205.5 Students will be able to understand graphic designing work.
SEMESTER III						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-301	Value Education	4	4			CO301.1 : Students will know the basics of value education and role of intrapersonal communication.
						CO301.2 :Students will have awareness about ethical principles and moral values, helping individuals understand the importance of making ethical decisions in their personal and professional lives.
						CO301.3 :Students will be having critical thinking respect to Indian constitution and National Values.
						CO301.4 :Students will have an understanding and appreciation of diverse cultures, beliefs, and perspectives, fostering tolerance and respect for cultural differences.
						CO301.5 :Students will critically develop the resilience and cope with life's challenges effectively.
BAJMC-302	Corporate Communication	4	4			CO302.1- Students will learn about the basic and emerging concepts and principles in relation to better decision making in Corporate Communication and Brand Management.
						CO302.2 – Students will understand the Corporate Social Responsibility, Corporate Communication and Management.

						CO302.3 – Students will understand the concepts and evolution of corporate communication in the context of media organizations.
						CO302.4- Students will understand about the Media and Campaign Planning and crisis management techniques.
						CO302.5 - To review and planning of media selection and its relevance to the practice of Corporate Communication.
BAJMC-303	Broadcast Journalism (Electronic Media-I)	4	4			CO303.1 - Students will able to understand the evolution journey of radio in the world scenario and the history of radio in India.
						CO303.2 :Students will get the knowledge of different types of radio programs.
						CO 303.3 :Students will critically differentiate between educational and community radio.
						303.4 :Students will come to know about techniques and process of three tire broadcasting and to know in detail about All India Radio and its divisions.
						303.5 :Students will get the knowledge and skills of different formats of radio program presentation.
BAJMC-304	Indian Political System	4	4			CO304.1-Students will know basics of Indian Constitution and Political System.
						CO304.2-Student will have Knowledge of fundamental rights, duties and directive principles and its use in Journalism & Mass Communication.
						CO304.3-Student will able to Analyse powers and role of Parliament, PM, President, ministers, Speaker , chairman of Rajya Sabha, passing bill and budget.
						CO304.4-Students will gain Knowledge about state and Panchayati Raj system, center state relations, governor, chief minister, council of ministers,Party System and judiciary system .

						CO304.5- Students will be competent to do verbal and written communication in context to Indian Political System.
BAJMC-305	Graphics and Design (Course Related Practical-Viva)					CO305.1 - Students will be able to understand the different stages of production of advertisements.
						CO305.2 - Students will be skilled in production of advertisements for different media platforms.
						CO305.3 - Students will be able to critically identify current trends within the digital media industry and appropriate career opportunities.
						CO305.4 - Students will be able to make the strategy and implementation of for Advertisement production ethically and creatively.
						CO305.5 - Students will be able to approach targeted audiences with fulfillment of social responsibility.
SEMESTER IV						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-401	Media Laws and Ethics	4	4			CO401.1: Students will know about the concept of law for different media platforms.
						CO401.2: Students will know about the Press with reference to the Indian Constitution.
						CO401.3: Students will be trained and practiced ethical standards of conduct and accountability towards the profession.
						CO401.4: Students will know about media organizations and have a critical approach towards various media laws.
						CO401.5: Students will be competent to do the right use media laws in their writing and communication.

BAJMC-402	Media and Cultural Studies	4	3	1		CO 402.1 :Students will know the about the basics of Indian culture.
						CO 402.2 :Students will be able to understand the ethical values of culture, intigration,cultural and intercultural changes.
						CO 402.3 :Students will be able to critically examine and understand the role of media in cultural changes and nation building.
						CO 402.4 :Students will be able to communicate cultural changes among different types of media writing.
BAJMC-403	Television Journalism (Electronic Media –II)	4	3	1		CO403.1: Student will understand history and characteristic of T.V in India/world.
						CO403.2: Students will have skill to understand visual grammar and camera techniques.
						CO403.3: Student will be able to analyse various aspects of visual composition in different types of T.V production and program.
						CO403.4: Student will be able to write for TV format programs, T.V news bulletin and TV news structure.
						CO403.5: Student will be competent to produce TV programs.
BAJMC-404	Indian Social System	4	4			CO404.1 – Students will get familiar with Indian Society, culture and Tradition.
						CO404.2 – Students will develop an understanding the concept of social change.
						CO404.3 - Students will be able to critically analyse the intercultural communication,caste system and social issues of mass media.
						CO404.4 – Students will get to know the different family structures ,marriage and Kinship in India.

						CO404.5 - Students will be competent to do verbal and written communication about Indian Social System.
BAJMC-405	Print Media Production (Course Related Practical-Viva)	4	4			CO405.1 Students will know about the basics of print media production.
						CO405.2 Students will be able to use the different softwares used for newspaper production.
						CO405.3 Students will be able to plan and prepare print media content.
						CO405.4 Students will be competent to design and layout the newspaper with graphics.
						CO405.4 Students will be competent to design and layout the newspaper with graphics.
SEMESTER V						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-501	Communication Research	4	3	1		CO501.1- Students will able to gain knowledge of Communication Research.
						CO501.2 – Students will understand the process and the importance variables in research.
						CO501.3 – Students will be able to apply different methods of communication research.
						CO501.4- Students will able to critically analyze the different sets of data in research.
						CO501.5 -Students will be having Practical Knowledge of Research on various issues.

BAJMC-502	New Media Technology	4	3	1		CO502.1 : Students will be able to gain a comprehensive understanding of the rapidly evolving landscape of new media technologies.
						CO502.2 : Students has developed critical thinking skills to evaluate the impact of new media technologies on society.
						CO502.3 : Students will know about the Cyber Journalism and cyber laws.
						CO502.4 : Students will be able to differentiate between Traditional Journalism and Web Journalism.
						CO502.5 : Students will be able to edit and write reports etc. for the digital media.
BAJMC-503	Environment and Rural Communication	4	4			CO503.1- Students will able to know about environment and environmental communication.
						CO503.2- Students will understand India's National Environment policies and environmental laws.
						CO503.3- Students will able to know National missions, plans and projects of environment protection.
						CO503.4- Students will understand and critically develop scientific temper by knowing the issues related to rural setup.
						CO503.5- Students will able to develop the journalistic approach by relating the course study and what they have observed.
BAJMC-504	Newspaper Production (Course Related Practical-Viva)	4	4			CO504.1- Students will learn the basics of designing the Newspaper and Magazine.
						CO504.2- Students will be able to Edit, layout Design and all process of Newspaper Production.
						CO504.3- Students will skilled to the usage and working on softwares.
						CO504.4- Students will able to produce newspaper and magazine.

BAJMC-505	Content Production of New Media (Course Related Practical)					CO505.1- Students will be known to set up and manage YouTube channel effectively.
						CO505.2- Students will be abled news writer, post-writer on current issues and news events.
						CO505.3- Students will be able to operate and manage various social media platforms.
						CO505.4- Students will be known to analyse and monetize social media channel .
SEMESTER VI						
Course Code:	Course Name	Credits				Course Outcomes (CO)
		Credits	Lecture	Tutorial	Lab/Practical	
BAJMC-601	Media Management	4	4			CO601.1:Students will be know the basics of media management.
						CO601.2:Students will be able to identify the different techniques of media management.
						CO601.3:Students will be understand finacial stratigies and policies of media management.
						CO601.4:Student will be able to develop critical appreciation and impart effective skills for managing various functions of the media houses .
						CO601.5:Student will be able to explain the importance of revenue generation for media organization and marketing stratigies of different media.

BAJMC-602	Development Communication	4	4			CO602.1 :Students will be able to understand the Development and its process.
						CO602.2 :Students will be able to understand the indicators of the Development.
						CO602.3 :Students will be know the theories of Development and the use of media for development communication.
						CO602.4 :Students will be able to communicate effectively the social issues related to the development.
						CO602.5 :Students will be known to the civic system of rural areas and will be skilled in writing development messages for media.
BAJMC-603	Audio-Visual Production (Electronic Media Practical-Viva)	4	4			CO603.1: Students will able to understand and develop TV program production.
						CO603.2: Students will understand the different stages of Audio-Visual Production.
						CO603.3 : Students will able to produce short movies and documentaries.
						CO603.4 : Students will be skilled in production of news bulletin.
BAJMC-604	Profile Study (Project Report)	4	4			CO604.1: Students will able to understand the importance of research.
						CO604.2: Students will be able to conduct content analysis of media on any topic.
						CO604.3 : Students will be able to do feed forward study.
						CO604.4 : Students will develop critical thinking skills to the case study.
						CO604.5 : Students will be able to do the surveys for research.

BAJMC-605	Internship-Viva	4	4			CO605.1 :Students will get practical knowledge by internship to the media organization as per their skills.
						CO605.2 : Students will be known to the working style and the professional environment of the media organizations.
						CO605.3 : Students will able to prepare the internship report as per the practical knowledge gain during internship.
						CO605.4 : Students are able to get placement as per their skills gained via internship.

6. OBE FRAMEWORK OF THE INSTITUTE

Program Specific Outcomes (PSOs)

- Program Specific Outcomes are statements that describe what the graduates of a specific engineering program should be able to do.
- PSOs characterize the specificity of the core courses of a program.
- The POs are important as a guideline when developing or revising the course outcomes.
- PSOs are defined based on the Centre of Excellence of the Department.
- Generally, 2 to 4 Program Specific Outcomes (PSOs) that the graduates of the program will attain should be defined for each department.

7. REVISED BLOOM'S TAXONOMY (BT)

Bloom's taxonomy is considered as the global language for education. Bloom's Taxonomy is frequently used by teachers in writing the course outcomes as it provides a readymade structure and list of action verbs. A summary of Anderson and Krathwohl's revised version of Bloom's taxonomy of critical thinking is provided in below Figure 1:

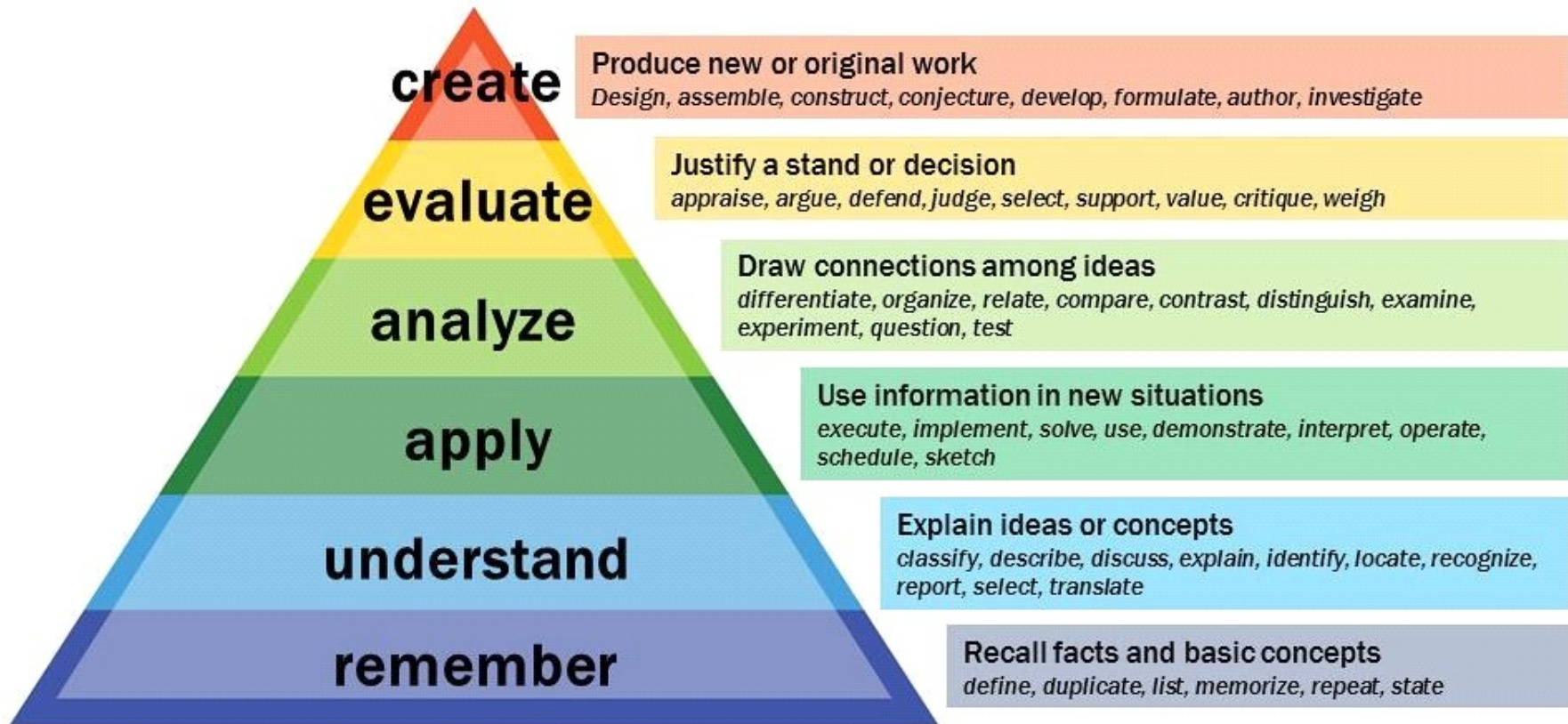


Figure 1: Revised version of Bloom's taxonomy

REVISED BLOOM'S TAXONOMY (BT)

Definitions of the different levels of thinking skills in Bloom's taxonomy:

- 1. Remember:** Recalling relevant terminology, specific facts, or different procedures related to information and/or course topics. At this level, a student can remember something, but may not really understand it.
- 2. Understand:** The ability to grasp the meaning of information (facts, definitions, concepts, etc.) that has been presented.
- 3. Apply:** Being able to use previously learned information in different situations or in problem solving.
- 4. Analyze:** The ability to break information down into its component parts. Analysis also refers to the process of examining information in order to make conclusions regarding cause and effect, interpreting motives, making inferences, or finding evidence to support statements/arguments.
- 5. Evaluate:** Being able to judge the value of information and/or sources of information based on personal values or opinions.
- 6. Create:** The ability to creatively or uniquely apply prior knowledge and/or skills to produce new and original thoughts, ideas, processes, etc. At this level, students are involved in creating their own thoughts and ideas.

REVISED BLOOM'S TAXONOMY (BT)

The cognitive process dimensions- categories					
Lower Order of Thinking (LOT)			Higher Order of Thinking (HOT)		
L1: REMEMBER	L2: UNDERSTAND	L3: APPLY	L4: ANALYSE	L5: EVALUATE	L6: CREATE
<ul style="list-style-type: none"> · Recognizing (identifying) · Recalling (retrieving) 	<ul style="list-style-type: none"> · Interpreting · Illustrating · Classifying · Summarizing · Inferring (concluding) · Comparing · Explaining 	<ul style="list-style-type: none"> · Executing · Implementing 	<ul style="list-style-type: none"> · Differentiating · Organizing · Attributing 	<ul style="list-style-type: none"> · Checking (coordinating, detecting, testing, monitoring) · Critiquing (judging) 	<ul style="list-style-type: none"> · Planning · Generating · Producing (constructing)

The Knowledge Dimension			
Concrete Knowledge → Abstract knowledge			
FACTUAL	CONCEPTUAL	PROCEDURAL	METACOGNITIVE
<ul style="list-style-type: none"> · Knowledge of terminologies · Knowledge of specific details & elements 	<ul style="list-style-type: none"> · Knowledge of classifications and categories · Knowledge of principles & generalizations · Knowledge of theories, models & structures 	<ul style="list-style-type: none"> · Knowledge of subject specific skills and algorithms · Knowledge of subject specific techniques and methods · Knowledge of criteria for determining when to use appropriate procedures 	<ul style="list-style-type: none"> · Strategic Knowledge · Knowledge about cognitive task, including appropriate contextual and conditional Knowledge · Self- Knowledge

8. ACTION VERBS FOR COURSE OUTCOMES

List of Action Words Related to Critical Thinking Skills:

Here is a list of action words that can be used when creating the expected student learning outcomes related to critical thinking skills in a course. These terms are organized according to the different levels of higher-order thinking skills contained in Anderson and Krathwohl's (2001) revised version of Bloom's taxonomy.

Here is the revised Bloom's document with action verbs, which we frequently refer to while writing Course Outcomes (COs) for our courses.

Sample Action Verbs for Course Outcomes (COs):

S. No.	BLOOM'S LEVEL	COGNITIVE LEVEL	ACTION VERBS
Lower Order of Thinking (LOT)			
1	L1: REMEMBER	Knowledge	Arrange Cite Define Describe Duplicate Identify Label List Memorize Match Name Order Outline Pronounce Quote Recall Recite Recognize Record Repeat Reproduce State Tabulate
2	L2: UNDERSTAND	Comprehension	Alter Classify Compare Convert Defend

S. No.	BLOOM'S LEVEL	COGNITIVE LEVEL	ACTION VERBS
			Describe Discuss Estimate Explain Express Extend Generalized Give examples Indicate Interpret Locate Paraphrase Recognize Rephrase Restate Reword Rewrite Select Summarize Translate Write
3	L3: APPLY	Application	Acquire Apply Calculate Change Chart Choose Compute Demonstrate Discover Dramatize Draw Employ Illustrate Interpret Manipulate Modify Operate Practice Prepare Produce Schedule Show Sketch Solve Use

S. No.	BLOOM'S LEVEL	COGNITIVE LEVEL	ACTION VERBS
Higher Order of Thinking (HOT)			
4	L4: ANALYZE	Analysis	Analyze Appraise Ascertain Associate Breakdown Calculate Categorize Classify Compare Conclude Contrast Criticize Designate Determine Diagnose Diagram Differentiate Discriminate Distinguish Divide Examine Experiment Explain Explore Find Infer Investigate Outline Point out Question Reduce Relate Separate Specify Subdivide Test
5	L5: EVALUATE	Evaluation	Appraise Argue Assess Attach Choose Compare Conclude Criticize

S. No.	BLOOM'S LEVEL	COGNITIVE LEVEL	ACTION VERBS
			Critique Deduce Defend Estimate Evaluate Grade Judge Justify Measure Predict Prove Rate Recommend Reframe Review Support Test Value Weigh
S. No.	BLOOM'S LEVEL	COGNITIVE LEVEL	ACTION VERBS
			Project Rearrange Reconstruct Reorganize Revise Set up Synthesize

Illustration (use of action verb w.r.t knowledge dimension and order of thinking):

BLOOM'S LEVEL/ Use of Action Verbs	Factual	Conceptual	Procedural	Metacognitive
L1: REMEMBER	List properties of Soil.	Recognize characteristic of material.	Explain working of pump.	Identify strategies for report writing.
L2: UNDERSTAND	Summarize features of a new product.	Classify adhesives by toxicity.	Explain assembly instructions.	Predict the behaviour of member.
L3: APPLY	Respond to frequently asked questions.	Provide advice to team members.	Carry out pH tests of water samples.	Use modern techniques to get solution.
L4: ANALYSE	Explain the selection of tool/ activity.	Differentiate Lower Order of Thinking (LOT) and Higher Order of Thinking (HOT).	Integrate compliance with regulations.	Assess the project work.
L5: EVALUATE	Select the appropriate tool.	Determine relevance of results.	Judge efficiency of sampling techniques.	Reflect on one's progress.
L6: CREATE	Generate a log of daily activities.	Assemble a team of experts.	Design efficient project workflow.	Create a learning portfolio.

9. GUIDELINES FOR WRITING COURSE OUTCOME STATEMENTS

Well-written course outcomes involve the following parts:

- ✓ Action verbs
- ✓ Subject content
- ✓ Level of achievement as per BTL
- ✓ Modes of performing task

Illustration:

Students are able to

- ✓ Design column splices and bases. → Action verb (underlined)
- ✓ Determine the losses in a flow system. → Subject content
- ✓ Use structural analysis software to a competent Level. → Level of achievement
- ✓ Present seminar on real life problems. → Modes of performing task with action verb (underlined)

While writing COs the following questions/points must be addressed properly.

Specific	Is there a description of precise behavior and the situation it will be performed in? Is it concrete, detailed, focused and defined?
Measurable	Can the performance of the outcome be observed and measured?
Achievable	With a reasonable amount of efforts and application can the outcome be achieved? Are you attempting too much?
Relevant	Is the outcome important or worthwhile to the learner or stakeholder? Is it possible to achieve this outcome?
Time-Bound	Is there a time limit, rate, number, percentage or frequency clearly stated? When will this outcome be accomplished?

10. QUALITY OF COURSE OUTCOMES

Guidelines/Checklist for COs:

Number of COs	4 to 6
CO Essentials	Action Verb, Subject Content, Level of Achievement, Modes of Performing task (If Applicable)
Based on BTL	Understand, Remember, Apply, Analyse, Evaluate, Create
Number of BTL Considered in one course	Minimum 3
Technical Content/ point of curriculum	All curriculum contents are covered
Curriculum gap	Additional CO for gap identified/filling. Adds more weightage

Assessment Type

Test Item:

- Mid-term Examination

Assessment Items:

- Quizzes
- Assignment problems
- Simulation
- Laboratory experiments
- Project, field work and report presentation
- Tutorials, activities & etc.

F) Any other criteria with proper justifiable document is acceptable.

11. ATTAINMENT OF COURSE OUTCOMES

Course Outcomes (CO) attainment:

Course Attainment is the sum of **Direct Attainment** and **Indirect Attainment**. **Direct Attainment** is computed based on the marks obtained by students in the respective Assessment Tools and **Indirect Attainment** is computed from the Course End Survey.

Assessment Tools to compute CO-PO/PSO attainment is as follows

Sl.No	Assessment Method	AssessmentTools*	Weightage* (%)	Marks	Assessment Cycle
1	Direct	Mid Term	30	10	Once
2	Direct	Assignment/Quiz	30	5	Thrice
3	Direct	Project (Individual/group)	10	5	One
5	Indirect	Class Performance /Attendance	10	5	Continuous assessment
Total			100	25	

***Faculty to provide the assessment method and weightage they follow for the respective course.**

Attainment Threshold criteria

LOW (>=50% to <=60%)
MODERATE (>60% to <=80%)
HIGH (>80%)



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