DEPARTMENT OF COMPUTER APPLICATIONS
PROGRAMME OUTCOMES AND COURSE OUTCOMES OF UNDER GRADUATE & POST GRADUATE PROGRAMME (2024 ONWARDS)

NAME OF THE PROGRAMME: BACHELOR OF COMPUTER APPLICATIONS – PROGRAMME OUTCOME	
PO1	**Disciplinary knowledge:** Capable of demonstrating comprehensive knowledge and understanding of one or more disciplines that forma part of an undergraduate Program me of study.
PO2	**Communication Skills:** Ability to express thoughts and ideas effectively in writing and orally Communicate with others using appropriate media confidently share one's views and express herself/himself demonstrate the ability to listen carefully, read and write analytically and present complex information in a clear and concise manner to different groups.
PO3	**Critical thinking:** Capability to apply analytic thought to a body of knowledge analyze and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence identify relevant assumptions or implications formulate coherent arguments critically evaluate practices, policies and theories by following scientific approach to knowledge development.
PO4	**Problem solving:** Capacity to extrapolate from what one has learned and apply their competencies to solve different kinds of non-familiar problems, rather than replicate curriculum content knowledge and apply one's learning to real life situations.
PO5	**Analytical reasoning**: Ability to evaluate there liability and relevance of evidence identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples and addressing opposing viewpoints.
PO6	**Research-related skills**: A sense of inquiry and capability for asking relevant/appropriate questions, problem arising, synthesizing and articulating; Ability to recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyze, interpret anddrawconclusionsfromdata,establishhypotheses,predictcause-and-effect relationships; ability to plan, execute and report the results of an experimenter investigation.
PO7	**Cooperation /Teamwork :** Ability to work effectively and respectfully with diverse teams facilitate cooperative or coordinated effort on the part of a group and act together as a group or a team in the interests of a common cause and work efficiently as a member of a team.
PO8	**Scientific reasoning**: Ability to analyze interpret and draw conclusions from quantitative/qualitative data and critically evaluate ideas, evidence, and experiences from an open-minded and reasoned perspective.
PO9	**Reflective thinking**: Critical sensibility to lived experiences, with self-awareness and

	reflexivity of both self and society.
PO10	**Information/digital literacy:** Capability to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources; and use appropriate software for analysis of data.
PO11	**Self-directed learning**: Ability to work independently, identify appropriate resources required for a project, and manage a project through to completion.
PO12	**Multicultural competence:** Possess knowledge of the values and beliefs of multiple cultures and a global perspective; and capability to effectively engaging multicultural society and interact respectfully with diverse groups.
PO13	**Moral and ethical awareness/reasoning**: Ability to embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives and use ethical practices in all work. Capable of demonstrating the ability to identify ethical issues related to one's work, avoid unethical behavior such as fabrication, falsification or misrepresentation of data or committing plagiarism, not adhering to intellectual property rights appreciating environmental and sustainability issues; and adopting objective unbiased and truthful actions in all aspects of work.
PO14	**Leadership readiness/qualities:** Capability for mapping out that asks of a team or an organization, and setting direction, formulating an inspiring vision, building a team who can help achieve the vision, motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.
PO15	**Lifelong learning:** Ability to acquire knowledge and skills including learning how to learn", that are necessary for participating in learning activities throughout life, through self-paced and self-directed learning aimed at personal development, meeting economic, social and cultural objectives, and adapting to changing trades and demands of workplace through knowledge/skill development/rescaling.

NAME OF THE PROGRAMME: B.C.A – COURSE OUTCOMES	
SEMESTER I	
Programming in C	1 Describe the fundamentals of C programming Language.
	2 Apply appropriate Control structures to solve problems.
	3 Describe the concept of Arrays and Strings
	4 Write User defined functions and apply concept of recursion to solve problems.
	5 Describe the concept of Pointers and Structures

C Lab	1	Understand the logic for a given problem. Write the algorithm of a given problem.
	2	Recognize and understand the syntax and construction of C programming code. Gain experience of procedural language programming. Know the steps involved in compiling, linking and debugging C code.
	3	Understand using header files. Learn the methods of iteration or looping and branching. Make use of different data-structures like arrays, pointers, structures and files. Understand how to access and use library functions.
	4	Understand function declaration and definition. Understand proper use of user defined functions. Write programs to print output on the screen as well as in the files.
	5	Apply all the concepts that have been covered in the theory course, and Know the alternative ways of providing solution to a given problem.
ALLIED **STATISTICAL METHODS AND THEIR APPLICATIONS -1**	1	Understand the statistical methods measures of location
	2	Understand the statistical methods measures of dispersion
	3	Apply the statistical methods of dispersion and location
	4	Understand the concept of Skewness.
	5	Understand the relationship between variables and fore casting the future values
Skill Elective Course Computer Basics	1	Understand the fundamentals of computer, hardware, software and Programming.
	2	Identify the hardware components of a computer and its usages.
	3	Ability to develop the appropriate program, analyze and interpret data
	4	Independently understand basic computer network technology.
	5	Understand the use of Operating system, commands and shell script.
SEC -2 Fundamental of Information Technology	1	Understand basic concepts and terminology of information technology.
	2	Have a basic understanding of personal computers and their operations.
	3	Be able to identify issues related to information security.
	4	Develop MS Office applications knowledge and skills
	5	To use the Internet safely, legally, and responsibly

FC – 1 Digital Computer Fundamental	1	Appreciate and understand the differences between hardware and software.
	2	Analyze a given problem and develop an algorithm to solve the problem.
	3	Improve upon a solution to a problem.
	4	An ability to understand and appreciate Boolean algebraic expressions to digital design
	5	Know and use different number systems and the basics of programming

NAME OF THE PROGRAMME: MASTER OF COMPUTER APPLICATIONS– PROGRAMME OUTCOME

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NAME OF THE PROGRAMME: MASTERS OF COMPUTER APPLICATIONS– COURSE OUTCOMES		
SEMESTER –I		
Data Structure and algorithm	1	Understand various ADT concepts
	2	Familiar with implementation of ADT models with Python language and understand how to develop ADT for the various real-time problems
	3	Apply with proper ADT models with problem understanding
	4	Apply and analyze right models based on the problem domain
	5	Evaluate modern data structures with Python language
Python Programming	1	Comprehend the programming skills in python and develop applications using conditional branches and loop
	2	Create python applications with strings and functions
	3	Understand and implement the Object Oriented Programming paradigm with the concept of objects and classes, Inheritance and polymorphism
	4	Evaluate the use of Python packages to perform numerical computations and data visualization
	5	Design interactive web applications using Django
DISCRETE MATHEMATICS	1	To understand the concepts of relations distinguish among normal forms
	2	To understand the concepts of functions distinguish among normal forms
	3	To solve and know various types of matrices
	4	To distinguish the various logic operators
	5	To evaluate and solve various types of graphs

Data Structure using Python Lab	1	Understand various data representation techniques in the real world
	2	Implement linear and non-linear data structures.
	3	Analyze various algorithms based on their time and space complexity.
	4	Develop real-time applications using suitable data structure
	5	Identify suitable data structure to solve various computing problems
Relational Database Management System	1	Describe the fundamental elements of relational database management systems
	2	Explain the basic concepts of relational data model, entity-relationship model, relational database design, relational algebra and SQL.
	3	Design ER-models to represent simple database application scenarios
	4	Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data.
	5	Improve the database design by normalization.
RDBMS Lab	1	Use typical data definition and manipulation commands
	2	Design applications to test Nested and Join Queries
	3	Implementing simple applications that use Views
	4	Implementing applications that required a Front-end tool
	5	Critically analyses the use of Tables, Views, Functions and Procedures.
Value Education - 1 **Human Rights**		1.The student will be able to know the nature of human rights its origin, the theories, the movements in the march of human rights and the facets of future of human rights.
		2. The student will be able to know the international dimension of human rights, the role of UN and the global effort in formulating conventions and declarations.
		3.The student will be able to Perceive the regional developments of human rights in Europe , Africa and Asia and the enforceable value of human rights in international arena.
		4. The student will be able to have knowledge on the human rights

	perspectives in India, more developed by its constitution and special legislations.
	5. The student will be able to know the redressal mechanism made available in case of human rights violation confined to India.