

BCA (Bachelor of Computer Application) (Honors / Research)

Course Outcome (CO)

SEMESTER - I		
Course Code	Course Title	Course Outcome (CO)
CA-111	Essential of Computer	<ul style="list-style-type: none"> Acquire the knowledge of fundamentals of Computer and Operating System. Develop problem solving skill through algorithms and flowcharts. Understand the basics of computer networking and internet. Understand the basics of Programming
CA-112	Programming using C++	<ul style="list-style-type: none"> Analyse and compare C++ with older programming languages, identifying key differences and understanding how C++ addresses limitations of previous languages. Implement different loop constructs to manage repetitive tasks in C++. Analyse and compare the memory allocation and use cases of structures versus unions. Apply the concept of pointers and demonstrate their usage in managing memory.
CA-113	Practical based on Programming using C++	<ul style="list-style-type: none"> Apply arithmetic operators to perform calculations and solve mathematical problems in C++ programs. Implement different loop constructs to manage repetitive tasks in C++. Analyze and implement the memory allocation and use cases of structures versus unions. Apply the concept of pointers and demonstrate their usage in managing memory.
CA-114	Office Management Tools	<ul style="list-style-type: none"> Perform documentation and presenting skills. Design layouts and templates for presentation. Organize, visualize and restructure data using different formulas of spread sheets.
CA-115	Web Development using HTML	<ul style="list-style-type: none"> Create a basic web page using HTML, demonstrating knowledge of static and dynamic content. Implement HTML tags to create web content such as lists, images, and multimedia elements. Create a web page that includes tables, framesets, and forms, using appropriate HTML tags and attributes.
ES-115	Environmental Studies	<ul style="list-style-type: none"> Articulate the interconnected and interdisciplinary nature of environmental studies and demonstrate an integrative approach to environmental issues with a focus on sustainability. Use critical thinking, and understand the methodological approaches of the social sciences, natural sciences, and humanities in environmental problem solving. Communicate complex environmental information to

		<p>both technical and non-technical audiences.</p> <ul style="list-style-type: none"> • Understand and evaluate the local and global scale of environmental problems and reflect critically on their roles, responsibilities, and identities as citizens and consumers in a complex, and interconnected world.
IKS 115	Ancient Indian Knowledge System	<ul style="list-style-type: none"> • The sources of Indian Knowledge System and Philosophy would be understood. • Awareness of the development of important elements of ancient Agriculture and Commerce will be created. • Students would know the ancient Indian Universities, Education Centres and ancient languages. • Students will know how Indian Knowledge, Arts, Technology and Philosophy spread its roots beyond Indian subcontinent through various foreign travellers. • As knowledge evolves in synchronization with civilization, the contribution of Indian Knowledge System will be underscored. • The importance of great age old tradition of Indian Knowledge will be underscored strengthening Indian Patriotism.
ENG 113	English for All: Oral Communication	<ul style="list-style-type: none"> • Identify the essential skills of oral communication in English • Communicate effectively and confidently in spoken English.
ECO-114	Fundamentals of Banking-I	<ul style="list-style-type: none"> • Students will understand knowledge of fundamentals of Banking. • • Students will understand about various banking concepts. • Students will be able to understand functions of a bank. • Students will to understand various methods of remittance.
	B): NSS - 1	<ul style="list-style-type: none"> • Understand social responsibility. • Awareness about social issues.
	C): Sports - 1	<ul style="list-style-type: none"> • Increase in the physical and mental fitness of students through sports. • The student may develop better grasping power. • Development of student's personality through sports. The students be encouraged for better competition in sports.
	D): Cultural Activities – 1	<ul style="list-style-type: none"> • विद्यार्थ्यांना स्वागत गीताचे स्वरूप समजून येईल. • विद्यार्थ्यांना भित्तिपत्रकाचे स्वरूप समजून येईल. • विद्यार्थ्यांना अतिथी परिचय कसा करतात ते लक्षात येईल. • विद्यार्थ्यांना आभार प्रदर्शनाचे प्रयोजन व स्वरूप समजून घेता येईल. • विद्यार्थ्यांना रचना, (डिझायनिंग) – चै कौशल्य प्राप्त होईल. • विद्यार्थ्यांना वर्तमान पत्रातील लेखनाचे स्वरूप, प्रकार समजून येईल. • विद्यार्थ्यांना वार्षिकांकाचे स्वरूप व प्रयोजन लक्षात येईल.
	G) IPDC-1	<ul style="list-style-type: none"> • To provide students with a holistic value-based

		<p>education that will enable them to be successful in their academic, professional, and social lives.</p> <ul style="list-style-type: none"> • To give the students the tools to develop effective habits, promote personal growth, and improve their well-being, stability, and productivity. • To allow students to establish a stronger connection with their family through critical thinking and development of qualities such as unity, forgiveness, empathy, and effective communication. • To provide students with soft skills that complement their hard skills, making them more marketable when entering the workforce. • To enhance awareness of India's glory and global values, and to create considerate citizens who strive for the betterment of their family, college, workforce, and nation. • To inspire students to strive for a higher sense of character by learning from role models who have lived principled, disciplined, and value-based lives.
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SEMESTER - II		
Course Code	Course Title	Course Outcome (CO)
CA-121	OOPs in C++	<ul style="list-style-type: none"> Describe the procedural and object-oriented paradigm with concepts of streams, classes, functions, data and objects. Understand dynamic memory management techniques using constructors and destructors Apply polymorphism concepts, including function and operator overloading, to enhance the functionality and flexibility of C++ programs. Implement file handling operations using stream computations to read from and write to files in C++.
CA-122	Introduction to Operating System	<ul style="list-style-type: none"> Understand the abstract views of an operating system from user and system perspectives. Gain a basic understanding of Linux and its architecture. Understand the shell environment and basic commands.
CA-123	Practical based on CA-121 and CA-122	<ul style="list-style-type: none"> Creating simple programs using C++ Solve well defined problems using C++ Implement Exception handling and file handling using C++ Implements Linux command and shell scripts
CA-124(A)	Basics of Management	<ul style="list-style-type: none"> Deeper understanding of basics of Management. Enable students to apply functions of Managements.
CA-124(B)	Basic Mathematics for Computing	<ul style="list-style-type: none"> Understanding of all terms related to mathematical logic. Understand the types of sets, method of representation, operations, and laws related to it. Ability to solve problems of determinants Ability to solve problems of matrices.
CA-125	Web Design-II	<ul style="list-style-type: none"> Understand how to use JavaScript within the context of web site development and identify its advantages and limitations. Identify and recall basic JavaScript syntax elements, such as data types, variables, and operators. Analyze the behaviour of functions and dialog boxes in different scenarios to understand their impact on user interaction. Apply JavaScript events and objects to create interactive web elements and manage data effectively.
CA-126	Introduction to Computer Graphics	<ul style="list-style-type: none"> Utilize traditional artwork methods alongside modern graphics technology to create diverse design projects. Understand the basic concepts of graphic design and effectively apply these concepts to real-world projects. Develop and present original design projects that demonstrate creative thinking and problem-solving skills, showcasing the ability to integrate design elements into organized visual solutions. Apply graphic design software to create digital illustrations and layouts.

CI-125	Constitution of India	<ul style="list-style-type: none"> • Constitution of India can be understood with its basic principles. • Understanding the Constitution and its values and to protect and nurture the ideals of the framers of the Constitution. • Information about parliamentary process and judicial system. • Ensuring knowledge about the various Fundamental Rights and duties and the Directive Principles that are fundamental in the governance of the country.
ENG 123	English for All: Written Communication	<ul style="list-style-type: none"> • Identify the essential skills of written communication in English • Communicate effectively and confidently in written English.
ECO-124	Fundamentals of Banking-II	<ul style="list-style-type: none"> • Students will understand knowledge of fundamentals of Banking. • Students will understand about various banking concepts. • Students will be able to understand functions of a bank. • Students will to understand various methods of remittance.
	B): NSS - 2	<ul style="list-style-type: none"> • Understand social responsibility. • Awareness about social issues.
	C): Sports - 2	<ul style="list-style-type: none"> • Increase in the physical and mental fitness of students through sports. • The student may develop better grasping power. • Development of student's personality through sports. • The students be encouraged for better competition in sports.
	D): Cultural Activities – 2	<ul style="list-style-type: none"> • विद्यार्थ्यांना संकलनाचे स्वरूप समजून घेतील. • विद्यार्थ्यांना सांस्कृतिक उपक्रमांच्या स्वरूपाचा, प्रकारांचा परिचय होईल. • विद्यार्थ्यांना रॅली चे स्वरूप व प्रयोजन समजून येईल. • विविध सांस्कृतिक, राष्ट्रीय दिनांचे महत्त्व विद्यार्थ्यांच्या लक्षात येईल.
	IPDC - 2	<ul style="list-style-type: none"> • To provide students with a holistic value-based education that will enable them to be successful in their academic, professional, and social lives. • To give the students the tools to develop effective habits, promote personal growth, and improve their well-being, stability, and productivity. • To allow students to establish a stronger connection with their family through critical thinking and development of qualities such as unity, forgiveness, empathy, and effective communication. • To provide students with soft skills that complement their hard skills, making them more marketable when entering the workforce. • To enhance awareness of India's glory and global values, and to create considerate citizens who strive for the betterment of their family, college, workforce, and

		<p>nation.</p> <ul style="list-style-type: none">• To inspire students to strive for a higher sense of character by learning from role models who have lived principled, disciplined, and value-based lives.
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