DURG VISHWAVIDYALAYA,

DURG (C.G.)

GOVT. CHANDULAL CHANDRAKAR ART. & SCIENCE COLLEGE PATAN DURG (C.G)

FOUR YEAR UNDERGRADUATE PROGRAM (NEP-2020)

Program: Bachelor in Computer Application (2024-28)

DISCIPLINE -COMPUTER APPLICATION

1ST SEMESTER	COURSE TYPE	COURSE CODE	COURSE TITLE
(Major/Core)DSC		CASC-0I	DISCRETE MATHEMATICS
		CASC-02T	COMPUTER FUNDAMENTAL AND MSOFFICE
		CASC-02P	LAB 1: MS-OFFICE
		CASC-03T	OPERATING SYSTEM
		CASC-03P	LAB 2: OPERATING SYSTEM
2ND SEMESTER	**COURSE TYPE**	**COURSE CODE**	**COURSE TITLE**
(Major/Core)DSC		CASC-04	Digital Electronics
		CASC-05T	Programming in C++
		CASC-05P	Lab 3: Programming in C++
		CASC-06T	Data Structure
		CASC-06P	Lab 4: Data Structure Using C++

PROGRAM OUTCOME – BACHELOR OF COMPUTER APPLICATION (BCA)

- Get transformed into a skill led learner and active programmer, enabling the students to focus on their higher studies.
- Value computer professionals and programmers.
- Explore how the concepts and applications of Computer lead to innovative thinking with a problem-solving attitude.
- Gain a complete exposure to the theories and practices of Computer Application.

PROGRAM SPECIFIC OUTCOMES (PSO):

- Understand the basic computer knowledge and concept of operating systems. Understanding the concept of programming and develop program in C++.
- Understanding the concept of data structure and implementation with C/C++.

- **COURSE LEARNING OUTCOMES (CLO)**

BACHELOR OF COMPUTER APPLICATION (BCA 1ST SEMESTER)

CASC-0I: DISCRETE MATHEMATICS

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-0I	**DISCRETE MATHEMATICS**	**CLO1:** understand sets and perform operations and algebra on sets **CLO2:** Determine properties of relations, identify equivalence and partial order relation, sketch relations. **CLO3:** Analyze logical propositions via truth tables. **CLO4:** Understand the fundamentals of Boolean algebra and its applications in switching circuit designing. **CLO5**: Understand the various graph theoretic concepts and familiarize with their allocations. **CLO6:** Understand and apply the group theory.

CASC-02T : COMPUTER FUNDAMENTAL AND MSOFFICE

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-02T	**COMPUTER FUNDAMENTAL AND MSOFFICE**	**CLO1:** Study and use of basic concepts and terminology of information technology. **CLO2:** Organize files and documents on storage devices. **CLO3:** Develop information technology solutions by evaluating user requirements in advance trends of IT. **CLO4:** Acquire knowledge of MS-Excel, MS-PowerPoint and MS-Access. **CLO5:** Acquire knowledge of ICT and Internet applications.

CASC-02P : LAB 1: MS-OFFICE

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-02P	**LAB 1: MS-OFFICE**	**CLO1:** Study and use of basic concepts and terminology of information technology. **CLO2:** Organize files and documents on storage devices. **CLO3:** Develop information technology solutions by evaluating user requirements in advance trends of IT. **CLO4:** Acquire knowledge of MS-Excel, MS-PowerPoint and MS-Access. **CLO5:** Acquire knowledge of ICT and Internet applications. **CLO6:**Gain Practical knowledge of MS-Office.

CASC-03T OPERATING SYSTEM

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-03T	**OPERATING SYSTEM**	**CLO1:** Understand the concept of operating system. **CLO2:** Understand the disk operating system. **CLO3:** work with DOS and DOS commands. **CLO4:** Understand the windows operating system **CLO5:** Understand the Linux operating system.

CASC-03P LAB 2: OPERATING SYSTEM

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-03P	**LAB 2: OPERATING SYSTEM**	**CLO1:** Understand the fundamental concepts of DOS, Windows and Linux operating system. **CLO2:** Understand basics of DOS commands and its types. **CLO3:** Understand features of Windows Operating system. **CLO4:** Explore functionality of Linux. **CLO5:** Understand comparative features of DOS and Windows Operating systems.

- **COURSE LEARNING OUTCOMES (CLO)**

BACHELOR OF COMPUTER APPLICATION (BCA 2ND SEMESTER)

CASC-04 DIGITAL ELECTRONICS

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-04	DIGITAL ELECTRONICS	**CLO1:** To understand and examine the structure of various number systems and its application in digital design. **CLO2:** To understand the fundamental concepts and techniques used in digital electronics. **CLO3:** Understand how the computer system identifies the data inside. **CLO4:** The ability to understand, analyze and design various combinational and sequential circuits. **CLO5:** To identify the basic requirements according to the specification for a newly customized digital circuit and design it in a cost-effective manner.

CASC-05T PROGRAMMING IN C++

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-05T	PROGRAMMING IN C++	**CLO1:** Understand the fundamentals object-oriented programming. **CLO2:** Define functions, class and to create own Libraries. Write programs for file handling. **CLO3:** Write programs related to concept of object-oriented program. **CLO4:** define functions , class and to create your own libraries **CLO5:** write programs for file handling. **CLO5:** develop small programs to solve real word problems.

CASC-05P LAB 3: PROGRAMMING IN C++

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-05P	LAB 3: PROGRAMMING IN C++	**CLO1:** Understand the fundamental programming concepts and methodologies which are essential to create good c++ programs. **CLO2:** code ,test and implement a well structured , robust computer program using the c++programming languages. **CLO3:** write reusable modules(collection of functions).

		CLO4: Understand design/implementation issues involved with variable allocation and binding, control flow, types, subroutines, parameter passing. **CLO5:** Develop an in-depth understanding of functional, logic, and object-oriented programming paradigms.

CASC-06T DATA STRUCTURE

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-06T	**DATA STRUCTURE**	**CLO1:** Understand the fundamentals and applications of data structure. **CLO2:** Understanding about data management in computer memory. **CLO3:** Utilize various algorithms for real world problem solving. **CLO4:** apply stack, Queue, Lists, Trees and Graphs for real world application. **CLO5:** Understand how various data structures can be used to implement through any programming language.

CASC-06P LAB 4: DATA STRUCTURE USING C++

COURSE CODE	SUBJECT	COURSE LEARNING OUTCOMES
CASC-06P	**LAB 4: DATA STRUCTURE USING C++**	**CLO1:** Implement the fundamentals data structure through C and C++ **CLO2:** Understand the functioning of Array and linked list programmatically. **CLO3:** Understand how the concept of data structure can be implemented programmatically. **CLO4:** Understand the applications of array, linked list stack, queue, tree and graph programmatic. **CLO5:** Write programs for various data structures for real world application.