

Programme Specific Outcomes

B.Sc. Computer Science

Programme Outcomes

B.Sc (CS) programme has been designed to prepare graduates for attaining the following specific outcomes:

PO1 – It provides an ability to apply knowledge of Mathematics, Computer software and hardware in practice. It enhances not only comprehensive understanding of the theory but practical also.

PO2 - The program prepares the young professionals in wide range of areas such as Digital logics and computer architecture, Algorithms, Programming, Networking, Software Engineering, Information Security, Web Designing, Micro-processors and micro-controllers.

PO3 - In order to enhance programming skills of the young IT professionals, the program has introduced the ability to identify a problem, isolate its key components, analyze and assess the salient issues, set appropriate criteria for decision making, and draw appropriate conclusions and implications for proposed solutions.

PO4 – The program equips to demonstrate the capabilities required to apply cross-functional business knowledge and technologies in solving real-world problems and to demonstrate use of appropriate techniques to effectively manage business challenges.

PO5 - curriculum is divided based on various streams specialization that is needed in the IT Domain. Hence a student can specialize himself/herself in a particular stream.

PO6 - It provides an opportunity to prepare for the competitive examination and also getting admission to Higher Education.

PO7 - Become employable in various IT companies as programmer, system engineer, software tester, junior programmer, web developer, system administrator, software developer etc.

PO8 – Ability to work in public sector undertaking and Government organizations.

COURSE OUTCOMES

COURSE OUTCOMES 2018-2019					
Sl No	Year	Course Code	Course Name	CO No.	Course Outcome
B.Sc. Computer Science					
1	2018-19	CSCS113	Introduction to Problem Solving using C	CO1	Demonstrate an understanding of computer programming language concepts.
				CO2	Ability to design and develop Computer programs in C
				CO3	Able to define data types and use them in simple data processing applications also he/she must be able to use the concept of array of structures.
				CO4	Able to analyzes, and interprets the concept of pointers, declarations, initialization, operations on pointers and their usage.
2	2018-19	CSCS114	Digital Logic and Computer Organization	CO1	Identify, understand and apply different number systems and codes.
				CO2	Understand the digital representation of data in a computer system.
				CO3	Learn about Shift registers
				CO4	Understand the general concepts in digital logic design, including logic elements, and their use in combinational and sequential logic circuit design.
3	2018-19	CSCS116	C Lab	CO1	Skill to write program code in C to solve real world problems and to debug a program
				CO2	In-depth understanding of various concepts of C language.
				CO3	To develop software program using “C” language
				CO4	To learn the concepts of “ C ” Programming
4	2018-19	CSCS117	Digital Lab	CO1	Learn the basics of gates
				CO2	Construct basic combinational circuits and verify their functionalities
				CO3	Apply the design procedures to design basic combinational circuits
				CO4	To understand the basic digital circuits and to verify their operation

5	2018-19	CSCS123	PYTHON Programming	CO1	To learn how to design and program Python applications.
				CO2	To understand why Python is a useful scripting language for developers
				CO3	To acquire programming skills in Python.
				CO4	To acquire Object Oriented Skills in Python
6	2018-19	CSCS124	Data Structures and Algorithms	CO1	To understand concepts about searching and sorting techniques
				CO2	To Understand basic concepts about stacks,queues,lists,trees and graphs
				CO3	To understanding about writing algorithms and step by step approach in solving problems with the help of fundamental data structures
				CO4	Understand basic data structures such as arrays, linked lists, stacks and queues.
7	2018-19	CSCS128	PYTHON lab	CO1	To learn basic python concept.
				CO2	Ability to isolate and fix common errors in Python programs.
				CO3	Skill to write codes in Python to solve mathematical or real world problems.
				CO4	To develop simple Python programs and code reusing with functions
8	2018-19	CSCS129	Data Structures & Algorithms lab	CO1	Skill to analyze data and to determine appropriate data structure.
				CO2	Knowledge of various data structures and their implementations.
				CO3	Ability to implement algorithms to perform various operations on data structures.
9		CSCS231	Database Management Systems	CO1	Describe the fundamental elements of relational database management systems
				CO2	database and formulate SQL queries on data
				CO3	Improve the database design by normalization
				CO4	Design ER-models to represent simple database application scenarios
10		CSCS232	Visual Programming using c#	CO1	To understand the various types of applications
				CO2	To get expertise in visual programming
				CO3	To understand the functionalities of middleware

					platform
11		CSCS233	Computer Networks	CO1	Identify and use various networking components Understand different transmission media and design cables for establishing a network
				CO2	Understand the TCP/IP configuration for Windows and Linux
				CO3	Implement any topology using network devices
				CO4	Implement device sharing on network
12		CSCS234	Software Engineering	CO1	Acquire strong fundamental knowledge in science, software engineering and multidisciplinary engineering to begin in practice as a software engineer.
				CO2	Design applicable solutions in one or more application domains using software engineering approaches that integrate ethical, social, legal and economic concerns.
				CO3	Apply new software models, techniques and technologies to bring out innovative and novelistic solutions for the growth of the society.
				CO4	Deliver quality software products by possessing the leadership skills as an individual or contributing to the team development
13		CSCS237	Visual Programming & RDBMS Lab	CO1	understand the programming algorithm, process, and developing data base designs
				CO2	Understand the use of Structured Query Language (SQL) and learn SQL syntax.
				CO3	Apply normalization techniques to normalize the database
14		CSCS238	Computer Networks Lab	CO1	To educate the functions of various OSI layers in detail
				CO2	Knowledge of OSI Layers in Computer Network.
				CO3	Ability to identify transmission media, types and topologies of network.
				CO4	Familiarization with the techniques of error detection and congestion control
15	2018-19	CSCS242	Object Oriented Programming using Java	CO1	Discuss the principles of inheritance, interface and packages and demonstrate through problem analysis assignments
				CO2	To learn experience of designing, implementing, testing, and debugging graphical user interfaces in Java using applet and AWT that respond to

					different user events
				CO3	To understand importance of Multi-threading & different exception handling mechanisms.
				CO4	To understand the importance of Classes & objects along with constructors, Arrays and Vectors.
16	2018-19	CSCS241	Operating Systems	CO1	Understand the basics of operating systems like kernel, shell, types and views of operating
				CO2	Describe the various CPU scheduling algorithms and remove deadlocks.
				CO3	Explain various memory management techniques and concept of thrashing
				CO4	Recognize file system interface, protection and security mechanisms
17	2018-19	CSCS243	Client/Server Computing	CO1	Understand the concept of client-server development and learn problem solving skills through design scenarios for network environment.
				CO2	To Define the underlying concepts in client server development using common access databases
				CO3	To understand Distributed computing environment, RMI and DCOM architecture, & CORBA.
				CO4	The objective of the course is to understand various WAN technologies and related Protocols
18	2018-19	CSCS247	Principles of Programming languages	CO1	To introduce notations to describe syntax and semantics of programming languages
				CO2	To introduce the concepts of ADT and object oriented programming for large scale software development.
				CO3	To analyze and explain behavior of simple programs in imperative languages using concepts
				CO4	To introduce the concepts of concurrency control and exception handling.
19	2018-19	CSCS249	Computer Graphics		Gain knowledge about graphics hardware devices and software used.

					Understand the two dimensional graphics and their transformations
					Understand the three dimensional graphics and their transformations
					Be familiar with understand clipping technique
20		CSCS237	Object Oriented Programming Lab	CO1	To learn the basic concepts of OOP
				CO2	Ability to create packages and interfaces.
				CO3	Ability to implement error handling techniques using exception handling.
				CO4	Skill to write Java application programs using OOP principles and proper program structuring.
21		CSCS301	Programming with C++	CO1	To learn the basics of C++ programming languages.
				CO2	To learn concepts of object oriented programming in developing solutions to problems demonstrating usage of data abstraction, encapsulation, and inheritance
				CO3	To implement the program using the concepts Polymorphism, dynamic binding.
				CO4	Understand and Apply object oriented programming concepts in problem solving through C++.
22	2018-19	CSCS351	Web Technology	CO1	Apply the concepts, principles and methods of Web engineering
				CO2	have a sufficient theoretical knowledge and analytical skills to develop Web applications;
				CO3	Apply the described concepts, principles and methods to development of complex Web applications
				CO4	Design and develop website using current Web technologies
23	2018-19	CSCS353	Data Mining	CO1	To develop programs and methods for data Mining applications.
				CO2	To solve problems for multi0core or distributed, concurrent/Parallel environment
				CO3	To understand the Data Mining and their techniques to solve the real time problems.
				CO4	To develop ability to design various algorithms based on data mining tools

24	2018-19	CSCS356	Systems Software	CO1	Distinguish between Operating Systems software and Application Systems software
				CO2	Identify Desktop and Windows features
				CO3	Describe the “boot” process.
				CO4	Use Utility programs.
25	2018-19	CSCS357	Artificial Intelligence	CO1	To study the concepts of Artificial Intelligence and Methods of solving problems using Artificial Intelligence
					To understand the basic techniques of knowledge representation and their use and components of an intelligent agent
					To be able to implement basic decision making algorithms, including search based and problem solving techniques, and first-order logic.
					To know the basic issues in machine learning
26	2018-19	CSCS259	Web Technology Lab	CO1	To inculcate knowledge of web technological concepts and functioning of internet
				CO2	To learn and program features of web programming languages.
				CO3	To understand the major components of internet and associated protocols.
				CO4	To design an innovative application for web.
27		CSCS402	PROLOG Programming		To learn how to create programs based on artificial intelligence
					write PROLOG programs to solve a variety of problems
					develop and test Prolog programs using a suitable Prolog interpreter
					use PROLOG as an effective AI programming tool
28	2018-19	CSCS361	Microprocessors and Controllers	CO1	Understand the taxonomy of microprocessors and knowledge of contemporary microprocessors
				CO2	Demonstrate programming using the various addressing modes and instruction set of 8086 microprocessor
				CO3	Understand architecture, memory management & multitasking of 80386 microprocessor
				CO4	Study recent advancements in microprocessor

					architectures
29	2018-19	CSCS363	Cloud Computing	CO1	Define Cloud Computing and memorize the different Cloud service and deployment models.
				CO2	Describe the key components of Amazon web Service
				CO3	Use and Examine different cloud computing services
				CO4	Design & develop backup strategies for cloud data based on features
30	2018-19	CSCS367	Principles of Compiler Design	CO1	To gain basic features of system software (assemblers / loaders / linkers / compilers) □ To gain knowledge on data structures required for implementation of system software like assemblers/loaders/compilers
				CO2	To understand the various phases of designing a compiler
				CO3	To understand the design of assemblers.
31	2018-19	CSCS368	Microprocessors Lab	CO1	To understand the architectures and the instruction set of 8085 microprocessor
				CO2	To understand the architectures and the instruction set of 8086 microprocessor
				CO3	To understand the architectures and the instruction set of 8051 microcontroller
				CO4	To learn interfacing of microprocessors and microcontrollers with various devices
32	2018-19	CSCS362	PROJECT	CO1	An ability to use current techniques, skills, and tools necessary for computing practice.
				CO2	An ability to apply design and development principles in the construction of software systems of varying complexity.
				CO3	An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.