



P.B. SIDDHARTHA COLLEGE OF ARTS & SCIENCE

Siddhartha Nagar, Vijayawada – 520 010

Autonomous - Re-accredited at 'A+' by the NAAC - ISO 9001 - 2015 Certified

College with Potential for Excellence-Phase-II (Awarded by the UGC)

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

S.No.	Particulars	Page Nos.
1	Learning Outcomes	2-12
2	Attainment	13-21
3	Google Classroom	22-23
4	Flipped Classroom	24-25
5	Faculty Development Programmes	26

DEPARTMENT OF COMPUTER SCIENCE
PROGRAMME OUTCOMES (POS) & PROGRAMME SPECIFIC OUTCOMES OF (POS) OF
M.SC.(COMPUTER SCIENCE), 2020-2022 Batch

PO1. Professional Ethics & Social Responsibility:

Ability to apply and commit to professional ethics following cyber regulations in a global economic environment. Create and design innovative applications to solve complex problems using established practices for the betterment of the society.

PO2. Critical Thinking, Business Analytics & Problem Solving and Innovation:

An ability to apply knowledge of mathematics and computer science practices to build Innovative Public & Private Sector Applications involving complex computing problem solving.

PO3. Global Exposure and Multi Cultural Understanding:

An ability to understand the impact of system solutions in a contemporary, global, economical, environmental, cultural and societal context for sustainable development.

PO4. Technical Expertise and Knowledge in Multiple Domains:

Ability to develop an understanding of modern computing concepts and architectures from a design and performance perspective of various domains.

PO5. Effective Communication:

Ability to communicate effectively and present technical & project management information using audio visual tools as well as in oral and written reports.

PO6. Leadership and Team Work:

An ability to perform effectively adapting as per requirement as an individual and as a leader of teams of individuals.

PO7. Self-directed and Life-long Learning: An ability to appreciate the importance of goal setting and to recognize the need for life-long learning.

MASTER OF COMPUTER SCIENCES

SEMESTER I:

CS1T1: OBJECT ORIENTED PROGRAMMING

Course Outcomes:

Students completing the course should:

1. Be able to understand the difference between object oriented programming and procedural oriented language. The model of object oriented programming: abstract data types, encapsulation, inheritance and polymorphism.(PO2) (PO3)(PSO1)
2. Fundamental features of an object oriented language like Java: object classes and interfaces, exceptions and libraries of object collections (PO1) (PO4) (PSO1)
3. How to take the statement of a business problem and from this determine suitable logic for solving the problem; then be able to proceed to code that logic as a program written in Java. (PO2) (PO5) (PSO1)
4. How to test, document and prepare a professional looking package for each business project using javadoc. develop software in the Java programming language(application). (PO4) (PSO2)
5. A final project that may be selected from among the following: applets for inclusion in web pages; applets to access enterprise data bases in robust, enterprise three level applications; secure communications over the internet; or an approved project chosen by the student.(PO3) (PO6) (PSO2)

CS1T2: COMPUTER ORGANIZATION

Course Outcomes:

Explain the generic principles that underlay the building of a digital computer, including digital logic circuits, digital components and data representation. (PO2) (PO3) (PO4) (PO5) (PO7) (PSO1)

1. Design a simple computer with hardware design including micro operations, register transfer buses, instruction codes and timing and control. ((PO2) (PO3) (PO4) (PO5) (PO7) (PSO1)
2. Illustrate design of processing unit using control memory, address sequencing, register and stacks, instruction formats and addressing modes. (PO2) (PO3) (PO4) (PO5) (PO7) (PSO1)
3. Understand addition, subtraction, multiplication and floating point operation implementation in Computers. (PO2) (PO3) (PO7) (PSO1)
4. Analyze and evaluate Input-output & memory organizations.(PO2, PO3, PO7)

CS1T3: DISCRETE MATHEMATICAL STRUCTURES

Course Outcomes:

1. At the end of the course the student will be able to:
2. Understand and apply Mathematical reasoning, write the proof.(PO2) (PSO1)
3. Apprehend the basic number theory, induction, recursion and can write algorithms.(PO3)(PSO2)
4. Perceive basic counting techniques, permutations, combinations, Relations for problem solving.(PO2) (PSO1)
5. Can work with Discrete structures which are used to represent discrete objects and the relationship between objects.(PO3) (PSO2)
6. Helps to conceive Applications and Modeling in diverse areas.(PO4) (PSO2)

CS1T4: DATABASE MANAGEMENT SYSTEMS

Course Outcomes:

1. To have good understanding on basics of database design and implementation, and conceptual modeling techniques. (PO4) (PO3) (PSO2)
2. To be able to specify, modify and retrieve the data. (PO1) (PO4) (PSO1)
3. Get acquainted with the sound design principles of databases, including the E-R modelling and Normalization approach.(PO2) (PO4) (PSO1)
4. Understand basic database storage structures and access techniques. (PO3) (PSO1)
5. Understand the logical units of database processing, non-interference property. (PO1) (PSO1)

CS1T5: DATA STRUCTURES

Course Outcomes:

1. Ability to implement mathematical functions and analyze algorithms and algorithm correctness.(PO2) (PSO1)
2. Ability to implement strings and Arrays.(PO4) (PSO1)
3. Ability to describe stack, queue and linked list operations.(PO4) (PSO2)
4. Ability to have knowledge of tree concepts.(PO4) (PSO2)
5. Ability to have knowledge of Graphs and Sorting and Searching Techniques.(PO3) (PSO1)

CS1L1: DATA STRUCTURES LAB

Course Outcomes:

1. Able to write well structured procedure oriented programs of upto 1000 lines of code. (PO1) (PSO1)
2. Analyze run time execution of previous learned sorting methods, including selection, merge sort, heap sort and Quick sort. (PO2) (PSO2)
3. To implement the Stack ADT using both array based and linkedlist based data structures.(PO4) (PSO2)
4. To implement the Queue ADT using both array based circular queue and linked list based implementations. (PO4) (PSO1)
5. Able to implement binary search trees. (PO4) (PSO1)

CS1L2: DBMS LAB

Course Outcomes:

1. Understand, analyze and apply common SQL statements including DDL, DML and DCL statements to perform different operations.(PO2) (PO7) (PSO1)
2. Design different views of tables for different users and to apply embedded and nested queries.(PO3) (PO7) (PSO1)
3. To implement joins and retrieve data. (PO4) (PSO1)
4. Implement a program using conditional, iteration, cursors, exceptions in PL SQL. (PO1) (PSO1)

CS1S1: SEMINAR

Course Outcomes:

1. Provides opportunity for students to develop skills in presentation.(PO6) (PO7) (PSO1)
2. Discussion of research topics in a public forum.(PO1) (PO5) (PO7) (PSO2)
3. Provides students with exposure to a variety of research projects. (PO5) (PO7) (PSO1)
4. Activities in order to enrich their academic experience. (PO5) (PO7) (PSO1)
5. Present technical information using audio visual tools as well as in oral and written reports. (PO1) (PO5) (PSO2)

SEMESTER II:

CS2T1: COMPUTER NETWORKS

Course Outcomes:

1. Student is able to understand the principles of computer networks and protocols various reference models including physical and data link layers. (PO1) (PO4) (PSO1)
2. Student is able to understand role of Data link sublayer – Mac layer and various protocols and media it handles. (PO4) (PSO1)
3. Student is able to understand network layer design issues, various routing protocols, network performance and role of Network layer in INTERNET. (PO4) (PSO2)
4. Student is able to understand basic elements of transport layer and major transport layer protocols in INTERNET TCP, UDP role. (PO4) (PSO2)
5. Student is able to understand in detailed about application layer protocols DNS, E-mail, WWW and streaming of audio and video data and fundamental concepts in network security. (PO1)(PO3) (PO4) (PO7) (PSO1)

CS2T2: OPERATIONS RESEARCH

Course Outcomes:

1. Understand fundamental concepts, general mathematical structure, solve using graphical method of LLP and interpret the optimal solutions of LP problems. (PO2) (PO7) (PSO2)
2. Cognitive Skills (Thinking and Analysis): Be able to build and solve Transportation Models and Assignment Models.(PO2) (PO7) (PSO1)
3. Students should have the knowledge and skills to Understand how game theorists think and approach a strategic problem.(PO1) (PO2) (PSO2)
4. Understand different principles for determining cost parameters (such as holding costs, shortage costs and set up costs) commonly used in production and inventory control models.(PO3) (PO7) (PSO1)
5. Be able to design new simple models like CPM, PERT to improve decision making and develop critical thinking and objective analysis of decision problems.(PO6) (PO7) (PSO1)

CS2T3: THEORY OF COMPUTATION

Course Outcomes:

To get familiar with

1. The student should be able to understand the different types of machine structure for regular languages.(PO2) (PSO1)
2. The student should be able to understand the laws and properties of Regular expressions and Regular languages.(PO4) (PSO2)
3. The student should be able to understand the Grammars and PDA's.(PO1) (PSO1)
4. Ability to have knowledge of CFL and Turing machine.(PO4) (PSO1)
5. Ability to have knowledge of undecidable problems.(PO3) (PSO2)

CS2T4: SOFTWARE ENGINEERING

Course Outcomes:

1. Basic knowledge on software engineering methods and practices, general understanding of software process models and agile development. (PO2) (PO7) (PSO1)
2. Knowledge of core principles, requirements & modelling concepts. (PO2) (PSO1)
3. Understand different software testing approaches and various aspects of software quality assurance. (PO1) (PO7) (PSO2)
4. Represent various process & project management concepts. (PO1) (PO7) (PSO2)
5. Estimate software projects, perform formal methods modelling & risk management. (PO1) (PO7) (PSO1)

CS2T5: OPERATING SYSTEMS

Course Outcomes:

1. To understand the basic concepts of operating system, its functions and services.(PO4) (PO3) (PO7) (PSO1)
2. To familiarize the students with various views and management policies adopted by operating system as pertaining with Processes, Deadlock, memory, File and I/O operations.(PO3) (PSO1)
3. Compare the various algorithms and comment about performance of various algorithms used for Processes, Deadlock, memory, File and I/O operations.(PO2) (PO4) (PSO2)
4. Knowledge of basic concepts towards Process Synchronization and related issues.(PO1) (PO4) (PSO2)
5. Better understanding on Protection & Security.(PO1) (PSO1)

CS2L1: COMPUTER NETWORKS & OPERATING SYSTEMS LAB

Course Outcomes:

1. Practice Unix Shell Scripting and AWK Programming. (PO1) (PO2) (PSO1)
2. Demonstrate Operating System Scheduling Algorithms. (PO2) (PO6) (PSO1)
3. Prepare Patch Cards and Implement Network Monitoring Tools. (PO3) (PO4) (PSO2)
4. Implement Network Programming to obtain IP address, Machine Name and Communication etc. (PO2) (PO4) (PSO1)
5. Design various networks with CISCO Packet Tracer and implement Network Algorithms. (PO4)(PO5) (PSO1)

CS2L2: PROBLEM SOLVING USING PYTHON PROGRAMMING LAB

Course Outcomes:

On successful completion of this course, the students:

1. Understand basics of *Python Programming*. (PO1) (PO2) (PSO1)
2. Gain knowledge on *Decision Control Statements* and *Functions & Modules*. (PO2) (PO6) (PSO1)
3. Be familiar with *Python Strings* and *Data Structures*. (PO3) (PO4) (PSO2)
4. Apply *Inheritance, Error and Exception Handling* and *Operator Overloading*. (PO2) (PO4) (PSO1)
5. Able to connect Database and perform Database Access. (PO2) (PO4) (PSO1)

GE01: COMMUNICATION SKILL

Course Outcomes:

1. Demonstrate in both oral and written work a discipline – specific critical facility through convincing and well -supported analysis of related arterial.(PO5) (PO7) (PSO1)
2. Demonstrate fluency in a grammatically accurate and rhetorically engaging style of writing.(PO5) (PO7) (PSO1)
3. Conceive, arrange, and articulate ideas logically and clearly.(PO5) (PO7) (PSO1)
4. Ability to produce correct and effective professional-level academic writing.(PO5) (PO7)(PSO1)
5. Understand workplace colleague’s roles and responsibilities.(PO5) (PO7) (PSO1)

SEMESTER III:

CS3T1: INTERNET OF THINGS

Course Outcomes:

1. Understand the visual sense of IOT from worldwide context. (PO1) (PO3) (PSO1)
2. Determine the market orientation of IOT. (PO3) (PSO1)
3. Use of devices, gateways, and data management in IOT. (PO4) (PSO1)
4. Building state of art architecture in IOT. (PO4) (PSO1)
5. Application of IOT in industrial and commercial Building automation and real world design constraint. (PO4) (PSO1)

CS3T2: DESIGN AND ANALYSIS OF ALGORITHMS

Course Outcomes:

1. Understanding basic ideas about algorithms and the concept of data structures. (PO4) (PSO1)
2. Computing complexity measures of algorithms, including recursive algorithms using recurrence relations (PO2) (PSO2)
3. 3.Applying the design techniques to solve complex problems.(PO3)(PO1) (PSO1)
4. 4. Analyzing the problems based on their space and time complexities. (PO2) (PSO2).
5. Ability to categorize the problems as NP-Hard and NP -Complete problems.(PO1) (PO7) (PSO1)

CS3T3: WEB TECHNOLOGIES

1. Understand the layering architecture of TCP/IP and Identifies the basic steps to develop web applications.(PO2) (PSO1)
2. Gains thorough understanding of working of each technology like JavaScript and can describe the structured data using XML. (PO3) (PSO1)
3. Understand Ajax enabled Rich Internet Applications and Web servers. (PO4) (PSO1)
4. Integrate offline or online data storage,background processes and other APIs through Database connectivity and understand scripting language Perl . (PO4) (PSO1)
5. Apprehend the basics of PHP and JSF. (PO4) (PSO1)

CS3T4: MOBILE COMPUTING

Course Outcomes:

1. Understand the basic concepts of worldwide networks, wireless transmission and generations of Mobile systems. (PO1) (PSO1)

2. Perceive the architecture and common technologies for mobile communication.(PO4) (PSO2)
3. Grasp the IP network protocols and methods used in IP routing of packets. (PO3)(PSO1)
4. Apprehend the working of Mobile IP. (PO4) (PSO1)
5. Gains Knowledge regarding the, NGNs, operating systems, application development using WML ,XML in Mobiles.(PO4) (PSO1)

CS3T3: DATA MINING

Course Objectives:

1. To introduce the basic concepts of Data mining. (PO1) (PO3) (PSO1)
2. To know the process of constructing Data mining. (PO4) (PO1) (PSO1)
3. To introduce the basic concepts of Data warehouse. (PO4) (PSO1)
4. Examine the types of the data to be mined and apply preprocessing methods on raw data. (PO2) (PSO1)
5. Discover interesting patterns, analyze supervised and unsupervised models and estimate the accuracy of the algorithms. (PO1) (PSO1)

CS3L1: WEB TECHNOLOGIES LAB

Course Outcomes:

1. Build functional web applications HTML. (PO1) (PSO1).
2. Incorporates multimedia capabilities and web page designs using Cascading Style Sheets. (PO2) (PSO1).
3. Code Client Server interaction Programs using Java based server Technology named Servlets. (PO2) (PSO1).
4. Create dynamic web pages wherein client interaction is facilitated using advanced server technology like JSP.(PO3) (PSO1).
5. Integrate offline data storage ,background processes and APIs using database connectivity and ASP. (PO4) (PSO1).

CS3L2: DATA MINING LAB

Course Outcomes:

1. To understand the various kinds of tools. (PO3) (PSO1)
2. Ability to apply mining techniques for realistic data.(PO2) (PSO1) (PSO2)
3. To understand the basic concepts in R. (PO1)(PSO2)
4. Understand how to import and export CSV files and package installation in R.(PO6) (PO7) (PSO2)

5. To develop and visualization of data mining algorithms in R.(PO6) (PO7) (PSO1) (PSO2)

CSS3P1: MINI PROJECT

1. To understand the programming language concepts and basics of Software Development Life Cycle model. (PO1) (PSO1)
2. To plan, analyze, design and implement a software project using SDLC model. (PO4) (PSO1)
3. Learn to work as a team and to focus on getting a working project done within a stipulated period of time. (PO6) (PSO1)
4. To link front end and back end of the project. (PO3) (PSO2)
5. To implement the project. (PO5) (PO7) (PSO2)

SEMESTER IV:

CS4T1: CLOUD COMPUTING

Course Outcomes:

1. Articulate the main concepts, key technologies, strengths, and limitations of cloud computing and the core issues of virtualization. (PO3) (PSO1)
2. Understand the open source architectures and services of cloud computing. (PO4)(PO7) (PSO2)
3. Develop and deploy cloud applications using popular cloud platforms. (PO1) (PO2)(PSO1)
4. Explore the risks, consequences and costs of cloud computing and understand the implementations of AAA model in the cloud. (PO4) (PSO1)
5. Introduce the broad perspective of Mobile Cloud Computing. (PSO2) (PO3) (PSO2)

CS4T2: ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

1. Identify problems that are amenable to AI techniques and analyse search techniques to solve those problems.(PO3) (PO1) (PSO1)
2. Awareness of representation languages like first order logic. (PO4) (PO7) (PSO1)
3. Formalize and implement different AI algorithms, various Knowledge Representations and identify the importance of planning to solve AI problems. (PO2) (PSO2)
4. Understands about basics of machine learning and conceptual learning. (PO4) (PSO1)
5. To acquire knowledge about ANN and Instance based learning. (PO7) (PSO1)

CS4T3B: BIG DATA AND ANALYTICS

Course Outcomes:

1. To understand the competitive advantages of big data analytics (PO3) (PS01) (PSO2)
2. To understand the big data frameworks. (P02) (P03)
3. To learn data analysis methods. (PO3) (PSO1) (PSO2)
4. To learn stream computing. (P02) (P03) (PS01) (PSO2)
5. To gain knowledge on Hadoop related tools such as HBase, Cassandra, Pig, and Hive for big data analytics. (PO2) (PO3) (PO4) (PSO2)

CS4L2: BIG DATA & ANALYTICS LAB

Course Outcomes:

1. To implement Map Reduce programs for processing big data. (PO3) (PSO1)
2. To realize storage of big data using H base, Mongo DB. (PO2)
3. To analyse big data using linear models. (PO2) (PO3) (PSO1) (PSO2)
4. To analyse big data using machine learning techniques such as SVM. (PO2) (PSO2)
5. Decision tree classification and clustering. (PO2) (PSO1)

CS4P1: PROJECT WORK

Course Outcomes:

6. Formulate a real world problem and develop its requirements. (PO1) (PO7) (PSO1)
7. Develop a design solution for a set of requirements. (PO5) (PO7) (PSO1)
8. Test and validate the conformance of the developed prototype against the original requirements of the problem. (PO6) (PO7) (PSO1)
9. Work as a responsible member and possibly a leader of a team in developing software solutions (PO6) (PO7) (PSO1)
10. Express technical ideas, strategies and methodologies in written form. (PO6) (PO7) (PSO1)

**Attainment of Programme Outcomes and Course Outcomes as Evaluated by the
Institution for M.Sc.(Computer Science) Programme (2020-2022 Batch)**

Course Code	Cos	PO1	PO2	PO3	PO4	PO5	PO6	PO7
CS1T1	CO1		M	H				
	CO2	L			M			
	CO3		M			L		
	CO4				H			
	CO5						H	
CS1T2	CO1			M	H			
	CO2					L		
	CO3			M		L		H
	CO4		L		M		H	
	CO5		L	H				
CS1T3	CO1		M					
	CO2			H				
	CO3		M					
	CO4			H				
	CO5				H			
CS1T4	CO1			L	M			
	CO2	M			L			
	CO3		L		H			
	CO4			H				
	CO5	H						
CS1T5	CO1		M					
	CO2				M			
	CO3				H			
	CO4				H			
	CO5			H				
CS1L1	CO1	H						
	CO2		M					
	CO3				M			
	CO4				M			
	CO5				L			
CS1L2	CO1		L					M
	CO2			M				H
	CO3				M			
	CO4					L		

CS1S1	CO1						M	H
	CO2	M						
	CO3							H
	CO4							M
	CO5	L						
CS2T1	CO1			M	M			
	CO2				H			
	CO3				M			
	CO4				M			
	CO5			L				
CS2T2	CO1		H					H
	CO2		L					M
	CO3		M					
	CO4	M	M					
	CO5						H	M
CS2T3	CO1		M					
	CO2				H			
	CO3		H					
	CO4				H			
	CO5			M				
CS2T4	CO1		L					M
	CO2		M					
	CO3	M						M
	CO4	L						H
	CO5	H						H
CS2T5	CO1			L	M			H
	CO2			M				
	CO3		M					H
	CO4	M			M			
	CO5	M						
CS2L1	CO1	L	M					
	CO2		M				H	
	CO3			M	M			
	CO4		H		M			
	CO5				M	L		
CS2L3	CO1	M			L			
	CO2				M			
	CO3	M						
	CO4				M			

	CO5	H						M
GE01	CO1							M
	CO2							L
	CO3							M
	CO4							L

CS3T1	CO1	L	M					
	CO2		L		H			
	CO3			M	L			
	CO4			M	M			
	CO5		M					H
CS3T2	CO1				H			
	CO2		M					
	CO3			H				
	CO4		M					
	CO5	H						M
CS3T4	CO1	H		M				
	CO2	H			M			
	CO3				M			
	CO4		L					
	CO5	M						
CS3T5	CO1		M					
	CO2				H	L		
	CO3				M			
	CO4		L			L		
	CO5	M					M	
CS3T6	CO1	M						
	CO2				H			
	CO3			M				
	CO4				M			
	CO5				H			
CS3L1	CO1	H						
	CO2		M					
	CO3		M					
	CO4			M				
	CO5				L			
CS3L2	CO1	M						
	CO2		L					
	CO3		M					

	CO4			M			
	CO5			M	M		
CS3P1	CO1	L					
	CO2				H		
	CO3					H	
	CO4			L			
	CO5					L	

CS4T1	CO1	L		L			
	CO2				M		H
	CO3	M	M				
	CO4				L		
	CO5		L	M			
CS4T2	CO1	L		L			
	CO2				M		M
	CO3			L			
	CO4			M	M		
	CO5				M		M
CS4T3	CO1	L	M	L			
	CO2	M	L		L		
	CO3	M					M
	CO4	L					H
	CO5	L					M
CS4L1	CO1	L	M	L			
	CO2	H	H		L		
	CO3	M					M
	CO4	L					H
	CO5	L					M
CS4P1	CO1	H					H
	CO2					L	M
	CO3					L	L
	CO4						H
	CO5						M

	H	10	4	7	15	0	6	15
	M	16	24	16	27	0	3	18
	L	14	12	9	8	10	0	3
Total weightage of the course		152	120	120	224	10	63	192
CS1T1	C.Weightage	0.66	5.00	7.50	5.36	10.00	14.29	0.00
CS1T2	C.Weightage	0.00	1.67	12.50	5.36	20.00	14.29	4.69
CS1T3	C.Weightage	0.00	5.00	15.00	4.02	0.00	0.00	0.00
CS1T4	C.Weightage	7.89	0.83	8.33	5.80	0.00	0.00	0.00
CS1T5	C.Weightage	0.00	2.50	7.50	9.38	0.00	0.00	0.00
CS1L1	C.Weightage	5.92	2.50	0.00	3.13	0.00	0.00	0.00
CS1L2	C.Weightage	0.00	0.83	2.50	1.34	10.00	0.00	6.25
CS1S1	C.Weightage	2.63	0.00	0.00	0.00	0.00	4.76	10.94
CS2T1	C.Weightage	0.00	0.00	3.33	8.04	0.00	0.00	0.00
CS2T2	C.Weightage	1.97	13.33	0.00	0.00	0.00	14.29	7.81
CS2T3	C.Weightage	0.00	10.00	2.50	8.04	0.00	0.00	0.00
CS2T4	C.Weightage	8.55	3.33	0.00	0.00	0.00	0.00	12.50
CS2T5	C.Weightage	3.95	2.50	3.33	2.68	0.00	0.00	9.38
CS2L1	C.Weightage	0.66	12.50	2.50	4.02	10.00	14.29	0.00
CS2L3	C.Weightage	9.87	0.00	0.00	3.13	0.00	0.00	1.56
GE01	C.Weightage	0.00	0.00	0.00	0.00	0.00	0.00	4.17
CS3T1	C.Weightage	0.66	5.83	5.00	5.80	0.00	0.00	4.69
CS3T2	C.Weightage	5.92	5.00	7.50	4.02	0.00	0.00	1.56
CS3T4	C.Weightage	13.82	0.83	2.50	2.68	0.00	0.00	0.00
CS3T5	C.Weightage	1.97	3.33	0.00	5.36	20.00	4.76	0.00
CS3T6	C.Weightage	1.97	0.00	2.50	9.38	0.00	0.00	0.00
CS3L1	C.Weightage	5.92	5.00	2.50	0.45	0.00	0.00	0.00
CS3L2	C.Weightage	1.97	3.33	5.00	1.34	0.00	0.00	0.00
CS3P1	C.Weightage	0.66	0.00	0.83	4.02	10.00	14.29	0.00
CS4T1	C.Weightage	2.63	3.33	3.33	1.79	0.00	0.00	4.69
CS4T2	C.Weightage	0.66	0.00	4.17	4.02	0.00	0.00	3.13
CS4T3	C.Weightage	5.92	3.33	0.83	0.45	0.00	0.00	7.81
CS4L1	C.Weightage	9.87	10.00	0.83	0.45	0.00	0.00	7.81
CS4P1	C.Weightage	5.92	0.00	0.00	0.00	20.00	19.05	13.02
		100.00	100.00	100.00	100.00	100.00	100.00	100.00

CO ATTAINMENT

S.NO	COURSE	Heads of Passing (% attainment) Direct			Indirect (I)	Average course Attainment
		IA TEST(30M)	SEM END EXAM(70M)	Average % Attainment(D)		
1	OBJECT ORIENTED PROGRAMMING	83.72	51.16	60.93	86.05	68.46
2	COMPUTER ORGANIZATION	51.16	25.58	33.25	88.37	49.79
3	DISCRETE MATHEMATICAL STRUCTURES	93.02	67.44	75.11	88.37	79.09
4	DATABASE MANAGEMENT SYSTEMS	56.90	37.20	43.11	88.37	56.69
5	DATA STRUCTURES	74.41	46.51	54.88	86.05	64.23
6	DATA STRUCTURES LAB	100.00	100.00	100.00	86.05	95.82
7	DBMS LAB	100.00	100.00	100.00	88.37	96.51
8	SEMINAR	100.00	100.00	100.00	86.05	95.82
9	COMPUTER NETWORKS	56.09	60.97	59.51	85.37	67.27
10	OPERATIONS RESEARCH	100	51.21	65.85	95.12	74.63
11	THEORY OF COMPUTATION	100.00	19.51	43.66	95.12	59.10
12	SOFTWARE ENGINEERING	100.00	19.51	43.66	92.68	58.36
13	OPERATING SYSTEMS	100.00	31.70	52.19	92.68	64.34
14	COMPUTER NETWORKS & OPERATING SYSTEMS LAB	100.00	100.00	100.00	85.37	95.61
15	PROBLEM SOLVING USING PYTHON PROGRAMMING LAB	100	100	100.00	85.37	95.61
16	COMMUNICATION SKILLS	100.00	100.00	100.00	81.25	94.38
17	INTERNET OF THINGS	100.00	63.41	74.39	95.12	80.61
18	DESIGN AND	70.73	19.50	34.87	96.50	53.36

	ANALYSIS OF ALGORITHMS					
19	WEB TECHNOLOGIES	100.00	58.53	70.97	98.33	79.18
20	MOBILE COMPUTING	92.68	53.65	65.36	93.68	73.86
21	DATA MINING	92.68	63.41	72.19	94.68	78.94
22	WEB TECHNOLOGIES LAB	100	100	100.00	95.68	98.70
23	DATA MINING LAB	100	100	100.00	96.68	99.00
24	MINI PROJECT	100	100	100.00	97.68	99.30
25	CLOUD COMPUTING	90.24	75.6	79.99	91.28	83.38
26	ARTIFICIAL INTELLIGENCE & MACHINE LEARNING	95.12	65.85	74.63	91.05	79.56
27	BIGDATA AND ANLAYTICS	97.56	87.8	90.73	90	90.51
28	BIGDATA AND ANLAYTICS LAB	100	100	100.00	91.05	97.32
29	PROJECT WORK	100	100	100.00	74.05	92.22

Weighted Contribution of the course in attainment of POs						
PO1	PO2	PO3	PO4	PO5	PO6	PO7
0.45	3.42	5.13	3.67	6.85	9.78	0.00
0.00	0.83	6.22	2.67	9.96	7.11	2.33
0.00	3.95	11.86	3.18	0.00	0.00	0.00
4.48	0.47	4.72	3.29	0.00	0.00	0.00
0.00	1.61	4.82	6.02	0.00	0.00	0.00
5.67	2.40	0.00	2.99	0.00	0.00	0.00
0.00	0.80	2.41	1.29	9.65	0.00	6.03
2.52	0.00	0.00	0.00	0.00	4.56	10.48
0.00	0.00	2.24	5.41	0.00	0.00	0.00
1.47	9.95	0.00	0.00	0.00	10.66	5.83
0.00	5.91	1.48	4.75	0.00	0.00	0.00
4.99	1.95	0.00	0.00	0.00	0.00	7.30
2.54	1.61	2.14	1.72	0.00	0.00	6.03
0.63	11.95	2.39	3.84	9.56	13.66	0.00
9.44	0.00	0.00	2.99	0.00	0.00	1.49
0.00	0.00	0.00	0.00	0.00	0.00	3.93
0.53	4.70	4.03	4.68	0.00	0.00	3.78
3.16	2.67	4.00	2.14	0.00	0.00	0.83
10.94	0.66	1.98	2.12	0.00	0.00	0.00
1.46	2.46	0.00	3.96	14.77	3.52	0.00
1.56	0.00	1.97	7.40	0.00	0.00	0.00
5.84	4.94	2.47	0.44	0.00	0.00	0.00
1.95	3.30	4.95	1.33	0.00	0.00	0.00
0.65	0.00	0.83	3.99	9.93	14.19	0.00
2.19	2.78	2.78	1.49	0.00	0.00	3.91
0.52	0.00	3.31	3.20	0.00	0.00	2.49
5.36	3.02	0.75	0.40	0.00	0.00	7.07
9.60	9.73	0.81	0.43	0.00	0.00	7.60
5.46	0.00	0.00	0.00	18.44	17.56	12.01
81.43	79.11	71.32	73.40	79.16	81.04	81.12

Final PO Attainment			
PO	Direct Attainment (D)	Indirect Attainment(I)	Final Attainment
1	81.43	92.11	84.63
2	79.11	94.74	83.80
3	71.32	92.11	77.56
4	73.40	94.74	79.80
5	79.16	86.84	81.46
6	81.04	94.74	85.15
7	81.12	92.11	84.41

Indirect attainment of POs				
PO NO	Question Asked	Response Received	Satisfaction Number	% Attainment
PO1	Are you able to develop the skills of analysing and solving a problem by studying this program	38	35	92.11
PO2	How far the courses and content useful to communicate the complex ideas and information	38	36	94.74
PO3	Does the courses and content useful to model and solve the problems related to society and industry	38	35	92.11
PO4	How far the skills of decision making improved with the practice of mathematics by understanding problems clearly	38	36	94.74
PO5	Level the impact of program on ethics	38	33	86.84
PO6	Does the models developed and their solutions useful to solve the problems related to environment	38	36	94.74
PO7	Does the skills developed are useful for lifelong learning and continuing research.	38	35	92.11



M.Sc., (2021-2023) -Batch
Chemistry Previous

33 students

M.Sc (2020-2022)- Batch
Chemistry Final

22 students

Google Classroom of M.C.A 2020-2022 Batch

The screenshot shows a web browser window displaying the Google Classroom interface. The browser's address bar shows the URL classroom.google.com/h. The page header includes the Google Classroom logo and a user profile for 'Google Account' with the name 'TSRavikiran TSRavikiran' and email 'tsravikiran@pbsiddhartha.ac.in'. Below the header, there are navigation links for 'To review' and 'Calendar'. The main content area features a grid of course cards. The top row contains four cards: '2020 MCA V SEM VP' (blue header), '2020 MCA OS' (dark blue header), '2020 M.SC. OS' (green header), and '2020 MCA & M.Sc.CS...' (teal header). The bottom row contains three cards: '2020 M.Sc.(CS) I SEM' (blue header), '2020 MCA I SEM CO...' (dark blue header), and '2020 MCA SEM IV PR...' (blue header). Each card has a white body and a small icon at the bottom right. The browser's taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray on the right indicates a temperature of 31°C, 'Mostly cloudy' weather, and the date '01-07-2022' at 10:41.

Flipped Classrooms

The screenshot shows a Facebook class page for 'M.Sc., (2021-2023) -Batch Chemistry Previous'. The header is a blue banner with two graduation caps. Below the banner is a 'Share with your class...' button with a user profile picture and a share icon. The main content area features three posts, each with a blue book icon, a title, a date, and an 'Add class comment' button. The posts are: 'New material: Metal ligand equilibria', 'New material: Flipped classroom', and 'New material: Electronic spectra of complexes', all dated 'Apr 28'. At the bottom is a navigation bar with 'Stream', 'Classwork', and 'People' tabs, and a mobile OS navigation bar with a hamburger menu, home, and back button.

M.Sc., (2021-2023) -Batch
Chemistry Previous

Share with your class...

New material: Metal ligand equilibria
Apr 28
Add class comment

New material: Flipped classroom
Apr 28
Add class comment

New material: Electronic spectra of complexes
Apr 28
Add class comment

Stream Classwork People



Teachers



Dr Satyadev N V S S Turlapati

Students



Asha Sivani



Bhanu Ummadisetti-DP-55



Bhavanasruthi Koduru



Bhogineni Gayatri



Bhuvaneswari Vennavalli



Stream



Classwork



People



Faculty Development Programmes organized

- Faculty Orientation Program on **New Internal Assessment Process** was organized on 18th October 2021. Sri Devineni Madhusudhana Rao, Social Entrepreneur addressed the faculty members about innovative teaching methodologies. Sri Anne Vithal Rao, COE has also shared his insights.
- **TCS trained** to six faculty members of the Department of Commerce who are associated with the B.Com. BPM Program.
- Department of Computer Science organized a Faculty Development Program in association with IQAC on “**The Art of Teaching Programming Courses**” on 24th December 2021 for Faculty Members of various Institutions. Dr M. Babu Reddy, Principal, Krishna University College of Engineering and Technology, Krishna University, Machilipatnam and Secretary, CSI, Vijayawada Chapter was the resource person.
- Department of English conducted **online FDP** in association with IQAC on **Research Publications and Patents** on 19th February, 2022. Dr. V. Saravanan, from VIT, Vellore acted as the resource person. The program was conducted in google meet platform.
- Department of English conducted a one week **Virtual Faculty Development Program** in association with IQAC on **Current Trends in World Literature and Language Studies** from 18th July 2022 to 23rd July 2022.
- Department of Computer Science in association with ICT Academy & IQAC had organized **Five Day FDP on Microsoft Power Bi Data Analyst Associate** during 25th July 2022 to 29th July 2022 (Five Days). Mr K. Raghavendra Swami, Sr. IT Trainer acted as Master Trainer was the resource person. Mr.Srinivasan, State Head, ICT Academy was the chief guest for inauguration.
- Department of Business Administration organized a FOP in association with IQAC on ‘**How to Tap Funding for Research Projects**’ on 22nd September 2022. Dr.M.Sravani, Associate Professor, Department of Veterinary Microbiology and Dr. Ch. Venkata Seshaiyah, Professor, Department of Livestock Farm Complex, NTR College of Veterinary Science, Gannavaram was the Resource Persons.
- Department of chemistry organized a three day Faculty Development Programme (FDP) in association with IQAC on “**Recent Advances in Chemical Research**” from 22nd September 2022 to 24th September 2022 with the following resource persons Dr. G. Surendra Reddy, Scientist, Research & Development Process R&D, Synthesis & Manufacturing of CRAMS& API Molecules, Patent Support, M/s Suven Pharmaceutical Ltd., IDA Pashamylaram, Hyderabad, Telangana; Sri Chakala Viswanath, R&D, Sr. Executive, M/s Suven Pharmaceutical Ltd., IDA Pashamylaram, Hyderabad, Telangana; Dr.R.Venkata Nadh, Professor & Head – Chemistry, Research Coordinator & Dy. Director-Admissions, GITAM University – Bengaluru, Karnataka.