GOVERNMENT DEGREE COLLEGE
URAVAKONDA -515812 , Anantapur District, Andhra Pradesh

ATTAINMENT OF COURSE OUTCOMES

BSc Computer Science

COs, PSOs and POs Mapping

PROGRAMME OUTCOMES (POS)

On successful completion of Graduate Program, Graduating Students/ Graduates will be able to

PO 1	Provide students with fundamental knowledge and ability to expertise in Computer Science.
PO 2	Provide insight to problem solving to succeed in Technical Profession through precise education and to prepare students to excel in postgraduate programs.
PO 3	To inculcate in students professional, effective communication skills, team work, multidisciplinary approach and an ability to relate issues to broader social context.
PO 4	Prepare students to be aware of excellence, leadership, written ethical codes and guidelines and lifelong learning needed for successful professional career by providing them with an excellent academic environment.
PO 5	Empower the students in academic, social, psychological and economic arenas by developing relevant competencies.
PO 6	Interpret and apply the implications of environment awareness initiatives incorporated in curriculum.
PO 7	Participation and contribution to community development activities through NCC, NSS etc.
PO 8	Acquire sufficient knowledge base in the Domain Specific area leading to the pursuit of advanced level of study in the chosen Domain Specific area.
PO 9	Adaptability and capacity building to the everchanging needs of the industry and employment opportunities.
PO 10	Inculcate the human values through curricular, co-curricular and extracurricular activities.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

The Department of Computer Science, Government Degree College, Uravakonda, offers Three Year (comprising 6 semesters) Undergraduate Program in Computer Science with objective of empowering students to acquire all-inclusive understanding of Computer Knowledge both theoretical and practical as an academic discipline. Upon completion of B. Sc. Computer Science Degree Program successfully, the students shall acquire the following skills and competencies.

PSO 1	Ability to apply foundations of Mathematics, Principles of Physics/Statistics and Theory of Computer Science in solving the real-world problems.
PSO 2	Identify, formulate, review research literature, and analyzes complex problems reaching substantiated conclusions using first principles of mathematics and Computer science.
PSO 3	Design solutions for complex problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PSO 4	Create, select, and apply appropriate techniques, resources, and modern IT tools including prediction and modelling to complex activities with an understanding of the limitations.
PSO 5	Understand the impact of the professional solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PSO 6	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PSO 7	Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PSO – PO MAPPING

		POs									
PSOs		1	2	3	4	5	6	7	8	9	10
	1	*	*		*						
	2	*	*		*	*			*	*	
	3	*	*	*	*	*			*	*	
	4	*	*	*	*	*			*	*	*
	5			*	*	*	*	*	*		*
	6						*	*	*	*	*
	7			*	*		*	*	*	*	*

COURSE OUTCOMES (COs)

Course Code: C1

Course Name: Problem solving in C

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand the basics of computer; Internal Structure.	1,2	1,4,8
CO 2	Apply logical skills to analyze a given problem; Understands basics of C language.	2,4	1,3,8
CO 3	Develops programs Using C language, logical skills applied.	3	2,4,8
CO 4	Understanding 'C' language constructs like Iterative statements, array processing pointers etc.	2,3	2,8,9
CO 5	Apply 'C' language constructs and write a C language program.	5,7	4,5,9

Course Code: C2

Course Name: Data Structures Using C

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand data structures for data storage and processing.	1,2	1,2,4
CO 2	Understand data structures Stack, Queue, Linked list, Trees and Graph and their real time applications.	2,4	1,2,4,5
CO 3	Choose a data structures for real time applications.	2,3	2,4,5
CO 4	Develop knowledge /coding skill to implement different sorting and search methods.	3,4	2,4,9
CO 5	Develop extensive knowledge on data structures basic operations like insert, delete, search, update and traversal.	2,3	1,2,8
CO 6	Design and develop programs using various data structures.	2,3	5,8,9
CO 7	Implement the applications of algorithms for sorting, pattern matching etc.	4,5,7	2,8,9

Course Code: C3

Course Name: Data Base Management System

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Acquire knowledge of database and DBMS.	1,2	1,2,4
CO 2	Comprehend the fundamental concepts of DBMS with special emphasis on relational data model.	2,3,4	1,2,5
CO 3	Understanding normalization and apply such knowledge to the normalization of a database.	1,3	2,8,9
CO 4	Database modelling using ER Diagrams and design database schemas based on the model.	2,4	2,5,8
CO 5	Create a small database using ORACLE and SQL.	3,7	4,8.9
CO 6	Store data and access data using ORACLE and SQL.	4,7	2,8,9

Course Code: C4

Course Name: Object Oriented Programming through Java

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand the principles of Structured programming.	1,2	1,2,5
CO 2	Understand basic terminology and syntax of java.	2,3	1,2,3
CO 3	Understand principles of Object-Oriented Programming in Java.	3,5	2,5,8
CO 4	Develop programming skills using Java and Object Oriented Programming.	3,4	2,5,8
CO 5	Develop programs to solve real-world problems through software development in high-level programming language like Java and OOPS concepts.	4,5	5,8,9

Course Code: C5

Course Name: Operating Systems

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand the basics and the role/functions of operating system in resource management.	1,2	1,2,4
CO 2	Understand operating system architecture design and its services.	2,4	1,2,5
CO 3	Understand the Android operating system, its structure.	3,4	4,8,9
CO 4	Understand various process management concepts including scheduling, synchronization and deadlocks.	2,7	2,4,5
CO 5	Understand memory management techniques i.e., paging, virtual memory, segmentation.	3,7	5,8,9
CO 6	Understand and identify potential threats to operating systems and the security mechanisms to safeguard the system.	3,5	2,4,8
CO 7	Specify objectives of modern operating systems and describe how operating systems have evolved over time.	4,5	4,8,9
CO 8	Have a basic understanding of Multithreading.	2,3	2,5,8
CO 9	Describe the functions of Contemporary Operating System.	2,4	1,2,4

Semester -VI

Course Name: Data Base Management Systems

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Modelling a database.	3,5	1,2,8
CO 2	Accessing data from a database with real time examples.	1,4	4,8,9
CO3	Database modelling using ER Diagrams and design database schemas based on the model.	2,4	2,5,8

Semester- VI

Course Name: Software Engineering

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Ability to gather and specify requirements of the software projects.	1,3	1,2,4
CO 2	Ability to analyze software requirements with existing tools.	4,5	3,4,5
CO 3	Able to differentiate different testing methodologies.	3,4	2,4,6
CO 4	Able to understand and apply the basic project management practices in real life projects.	4,5	5,8,9
CO 5	Ability to work in a team as well as independently on software projects.	5,7	4,5,9

Semester -VI

Course Name: Web Technologies

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand the web applications and web technologies terminology.	1,3	1,2,4
CO 2	Develop applications using latest web technologies.	2,5	4,5,6
CO 3	Designing interactive web pages using HTML and Style sheets.	3,4	4,6,8
CO 5	Understand XML and its application in web based applications.	5,6	4,5,9

Semester-VI

Course Name: Foundation of Data Science

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Understand fundamental algorithmic ideas to process data.	1,3	1,2,4
CO 2	Understand applying hypotheses and data into actionable predictions.	2,5	3,4,5
CO 3	Understand using data science in real time applications.	4,6	5,8,9

Semester -VI

Course Name: Big Data Technology

Upon completion of this course, the student will be able to		PSO	PO
CO 1	Learn fundamentals of data science.	1,3	1,2,4
CO 2	Learn to build and maintain reliable, scalable, distributed systems with Apache Hadoop.	2,4	4,6,8
CO 3	Able to develop Hadoop ecosystem components in real time applications.	3,6	5,6,8

Thank you