

C&DS Programming (One Week Schedule)

Day & Session	Topics and Learning Objectives	Faculty Name
Monday – Session I	Inaugural Session	
Monday – Session II	<p>Algorithms and Flow charts</p> <ul style="list-style-type: none"> ➤ What is an algorithm. ➤ How to use algorithms to solve the problems. ➤ Analyzing and understanding the purpose of an algorithm ➤ Evaluation of different algorithms. ➤ Usage of different flow chart symbols. ➤ Representing an algorithm using flow chart. ➤ Conditional and iterational statement representation in a flow chart. ➤ Dry run algorithm & Flow chart with set of data. ➤ Demo using RAPTOR Tool. 	<p>Dr. K.V.N. Sunitha Prof. & HOD CSE GNITS</p>
Monday – Session III	<p>Introduction to C:</p> <ul style="list-style-type: none"> ➤ Programming & Programming Language ➤ Generations of Programming languages. ➤ Basics of C Languages. ➤ Binary, Decimal and Hexa decimal numbers. ➤ Difference between Amateur and Professional Code. ➤ Steps in creating C Programs Preprocessor Directives A Sample C Program ➤ Demo using Dev C++ for hello word ➤ Explaining different ‘C’ Compilers. ➤ Integrated Development Environment ➤ Compiler errors ➤ Linker Errors 	<p>Dr. K. P. Supreethi CSE Dept, JNTUHCE</p>
Monday – Session IV	<p>Operators, Expressions</p> <ul style="list-style-type: none"> ➤ Types of operators with Examples <ul style="list-style-type: none"> - Assignment Operators - Arithmetic Operators (Problems of uninitialized, Precedence of operators, How to overcome pitfalls of operators precedences?) - Relational Operators - Logical Operators - Increment & Decrement Operators - Bitwise Operators - Address of Operator (&) - Assignment vs Equality operator ➤ Precedence and Associativity ➤ Type casting 	<p>Dr. K. P. Supreethi CSE Dept, JNTUHCE</p>

Day & Session	Topics and Learning Objectives	Faculty Name
	ANSI C Library ➤ Calling a Library function ➤ Formatted Output using printf ➤ Writing Programs using printf ➤ Reading keyboard input	
Tuesday – Session I	Conditions and Loops (Control Structures) ➤ Selection Control structures - if - switch - selecting if or switch ➤ Iterational Control Structures - While loop - Do while loop - For loop - Nested loops - How to overcome problems in loops - Control transfer statements Break, continue - Selecting between while, do while and for ➤ goto ➤ Examples	Mrs. K. Sindhura CSE Dept. GNITS
Tuesday – Session II	Arrays (Characters, Arrays and Strings) ➤ Character data set. ➤ The ASCII character set. ➤ Declaring and using character set. ➤ How does a computer display characters. ➤ How to print a character on screen. ➤ Introduction to arrays. ➤ Declaring and initializing arrays. ➤ Using array Elements. ➤ Two dimensional arrays. ➤ Character arrays. ➤ Examples.	Mrs. Ch. Mandakini CSE Dept. GNITS
Tuesday – Session III	Functions: ➤ Why to use functions? ➤ Advantages of functions. ➤ Library functions vs user defined functions. ➤ Coding standards for writing functions. ➤ Declaring function prototypes. ➤ Formal and actual parameters. ➤ Best practice for writing functions. ➤ Local and Global variables ➤ Parameter passing techniques ➤ Passing arrays as arguments to functions ➤ Recursive functions. ➤ Pre Processor Directives	Mrs. A. Sharada CSE Dept. GNITS

Day & Session	Topics and Learning Objectives	Faculty Name
Tuesday – Session IV	Lab Session	Mrs. R.Pallavi Reddy/ Mrs. S.Sandhya/ Mr. T. Sandeep
Wednesday – Session I	Pointers (1) ➤ Introduction to pointers ➤ Pointer and assignment ➤ Reading contents of variables using pointers. ➤ Null pointers ➤ Pointers and arrays ➤ Pointers and strings	Mr. S.V.L. Narsimham SIT, JNYUH
Wednesday – Session II	Pointers (2) ➤ Array of pointers ➤ Pointer to pointers ➤ Pointers and functions	Mr. S.V.L. Narsimham SIT, JNTUH
Wednesday – Session III	Structures and Unions ➤ Declaring and using a structure ➤ Accessing member variables of a structure ➤ Typedef keyword ➤ Coding standards & best practices for structures in memory ➤ Pointer to structures and size of structure ➤ Accessing member variables of a structure using pointer ➤ Passing structures to functions ➤ Unions, ➤ Enumerated Data Types ➤ Bit Fields	Mrs. P. Sunitha Devi CSE Dept. GNITS
Wednesday – Session IV	Lab Session	Mrs. R.Pallavi Reddy/ Mrs. S.Sandhya/ Mr. T. Sandeep
Thursday – Session I & II	➤ Stacks ➤ Applications of Stacks Conversion of infix to postfix notation Evaluation of postfix expression ➤ Queues	Mrs.N. Kalyani CSE Dept. GNITS
Thursday – Session III	Linked List ➤ Concepts of linked lists ➤ Advantages of linked lists ➤ Types of Linked lists - Single - Double - Circular ➤ Basic list Operations	Dr. R.Sridevi CSE Dept, JNTUHCE
Thursday – Session IV	Lab Session	Mrs. R.Pallavi Reddy/ Mrs. S.Sandhya/ Mr. T. Sandeep

Day & Session	Topics and Learning Objectives	Faculty Name
Friday – Session I	Files <ul style="list-style-type: none"> ➤ Creating and opening a file. ➤ Closing a file ➤ I/O operations on files ➤ Error handling during I/O operations ➤ Random accessed files ➤ Command line arguments 	Dr. I.Ravi Prakash Reddy Prof. & HOD IT GNITS
Friday – Session II	<ul style="list-style-type: none"> ➤ Searching Algorithms <ul style="list-style-type: none"> - Linear Search - Binary Search 	Dr. M.Seetha Prof. CSE Dept, GNITS
Friday – Session III, IV	<ul style="list-style-type: none"> ➤ Sorting Algorithms <ul style="list-style-type: none"> - Bubble Sort - Selection Sort - Insertion Sort - Quick Sort - Merge Sort - Heap Sort 	Mrs. E.Hemalatha CSE Dept, JNTUHCE
Saturday Session I & II	Lab Session	Mrs. R.Pallavi Reddy/ Mrs. S.Sandhya/ Mr. T. Sandeep
Saturday Session III	Online Exam Discussion	
Saturday Session IV	Valedictory	