

<b>COURSE CODE</b>	<b>COURSE TITLE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>1154CS205</b>	<b>CODING TECHNIQUES – II</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>3</b>

**Course Category:** University Elective (All branches except CSE and IT)

**Course Content:**

**UNIT I REVIEW OF PROGRAMMING** **L-6, P-6**

Arrays – 1D, 2D and Multi-Dimensional Arrays. Matrix Operations. Pointers – Pointer arithmetic, array pointers and function pointers. Functions – function communication and function recursions

**UNIT II LINKED LISTS** **L-6, P-6**

Introduction to Linked Lists, Operations on a Linked List, Traversals - Doubly Linked List – Circular Linked List

**UNIT III STACKS AND QUEUES** **L-6, P-6**

Stack – Introduction to stack data structure, Stack operations, Infix, Prefix and Postfix evaluations, Stack using Array and Linked list.

Queue – Introduction to Queue, Queue operations, Queue using an Array and Linked list

**UNIT IV TIME COMPLEXITY, SORTING AND SEARCHING** **L-6, P-6**

Introduction to time complexity - Searching – Linear search, Binary search techniques – Sorting Methods – Bubble sort, Selection sort, Insertion sort, Quick sort, Merge sort.

**UNIT V DATABASE MANAGEMENT SYSTEM** **L-6, P-6**

DBMS –ER And Relational Models, Data Definition and Querying, Transactions and Concurrency, Advanced Topics in Databases.

**TOTAL:30+30=60PERIODS**