Course: Programming, Data Structures and Algorithms using C

Course Code: noc18-cs25

Session: 2017-18

Duration: 8 Weeks

Assessment procedures: Weekly Assignment (25%) + proctored certification Exam (75%)

Curriculum of the Course:

- Introduction to Computers and Programming
- Writing your first program
- Variables and operators and expressions
- Variable declarations, more operators, precedence
- Input, Output Statements
- Conditionals
- Loops
- Arrays and Multidimensional arrays
- Pointers
- Functions
- Running time of a program
- Computing time complexity
- Polynomial evaluation and multiplication
- Searching: Linear and Binary Finding minimum and maximum
- Sorting I: Insertion, Merge
- Sorting II: Counting, Radix
- Finding i-th smallest number
- Structures and User-defined data types
- Brief introduction to C++: Classes and objects
- Data Structures:Abstract Data Type
- Lists
- Stacks: Last In First Out
- Queues: First In First Out
- Trees
- Tree traversal
- Heaps
- Graphs and Representation
- Greedy algorithms
- Dynamic programming
- Matrix Chain Multiplication
- Dijkstra's Algorithm
- Strings
- Boyer-Moore String Matching Algorithm
- File I/O
- Modular Programming

List of students enrolled

S. No.	Name of Student
1.	Abhinav Sharma
2.	ashish kumar ojha
3.	pulkit sharma
4.	Manish Malav
5.	rahul soni
6.	sanju choudhary
7.	Saumya singh
8.	Vishal Tulsani