Course Name: Data Structures   **Instructor:** Prof. Navrati Saxena

Course Code: SWE-2015-42

Course Day/Time: Wednesday: 09:00-10.15; Wednesday: 10:30 – 11.45

Course Mode: Online (uploaded recorded lecture videos)

Office Hours: Email me if you would like to meet me to discuss anything related to the course. I will provide a WebEx/Zoom link for our meeting.

Course Outline: The course is about data structures. In this course we will learn about the representation and manipulation of data. All programs represents data in some way. Computer Science is about programming. All programs manipulate data through algorithms. The study of data structures and algorithms is fundamental to Computer Science. In this course we will learn about the design and analysis of data structures; various types of data structures; their advantages and disadvantages over each other and their applications.

Book: Data Structures Using C and C++ by Yedidyah Langsam, Moshe J Augenstein, Aaron M Tenenbaum. 1995, Pearson. ISBN-13: 9780130369970

Grading Policy:

Assignments/Quiz: 20%   **Mid-term: 40%**   **End-term: 40%**

DAY-WISE SCHEDULE

1 **Feb. 23** **Introduction Data St. Concepts**	**2** **March 2** **Programming Basics**	**3** **March 9** **Estimating Complexity**	**4** **March 16** **Stack Queue**
5 **March 23** **QUIZ – I**	**6** **March 30** **Array *Ungraded Assignment***	**7** **April 06** **Review**	**8** **April 13** **MID TERM**
9 **April 20** **Linked List Trees – I**	**10** **April 27** **Trees – II Binary Search Tree**	**11** **May 04** **Graphs I & II**	**12** **May 11** **QUIZ - II**
13 **May 18** ***Discuss Assignment, Quiz-1, MidTerm, Quiz 2* Graphs III Prim's Algo Hash Table/Hashing – I**	**14** **May 25** **Hash Table/Hashing – II Heaps & Heap Sort**	**15** **June 01** **END TERM**	