Course	**CS 5343**
Professor	Dr.Neeraj K Gupta
Term	Fall 2016
Meetings	M and W 11:30-12:45pm ECSS 2.201

Professor's Contact Information

Office Phone	972 883 4656
Office Location	ECSS 3.207
Email Address	nkg140130@utdallas.edu
Office Hours	Mon-Tue10:00PM - 11:00 AM
Other Information	Course materials available on elearning

TA's Contact Information –

Name:
Office Location:
Email Address:
Office Hours:

General Course Information

Pre-requisites, Co-requisites, & other restrictions	CS 5303 Computer Science I, CS 5333 Discrete Structures Prerequisite will be strictly enforced.
Course Description	Topics: Analysis of algorithms. Stacks, queues, and trees, including B-trees. Heaps, hashing, and advanced sorting techniques. Graphs, algorithms on graphs
Learning Outcomes	Study efficient algorithms for a number of fundamental problems, learn techniques for designing algorithms, prove correctness and analyze running times. 1. Ability to understand asymptotic notations, recurrences, algorithm analysis 2. Ability to use/analyze Lists, stacks, queues, hashing, priority queues 3. Ability to use/analyze Binary search trees, balanced binary search trees 4. Ability to use/analyze Graphs, Depth-first search, Topological ordering 5. Ability to use/analyze Breadth-first search, Dijkstra's algorithm 6. Ability to use/analyze Algorithms of Prim and Kruskal, Disjoint-set Union-Find problem
Required Texts & Materials	Data Structures and Algorithms in C++ by M. T. Goodrich, R. Tamassia, D. M. Mount.
Suggested Texts, Readings, & Materials	Recommended papers may be provided during the semester.

Assignments & Academic Calendar

[Topics, Reading Assignments, Due Dates, Exam Dates]

Exams: There will be two exams: a midterm and a final. The exams will be closed book and the final exam is comprehensive.

Assignments: Homework will be assigned during the semester.

Course Policies

Grading (credit) Criteria	The grade each student earns from this class will be based on the following table. Exam 1 30% Exam 2 40% Assignments 30% Total 100% A Bonus for class particiation. Class room exercises will be given. I will call a student at random from class roster to present the exercise. By end of semester each student will have an equal opportunity to answer. ALL WORK MUST BE INDIVIDUAL WORK. Cases of cheating will be forwarded to the Judicial Affairs office.
Make-up Exams	Only by consent of instructor under severe reasons.
Extra Credit	None
Late Work	Not allowed
Class Attendance	Class attendance will be taken. Absence from classes I do not check for class attendance, but given the difficulty of the topics it is obviously necessary.
Classroom Citizenship	Please participate and ask questions during class. It tends to slow down the pace and make the lectures more enjoyable.
Other Misc. Items	• Please bring your photo ID to each exam
UT Dallas Syllabus Policies and Procedures	*The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.* *Please go to http://go.utdallas.edu/syllabus-policies for these policies.*

These descriptions and timelines are subject to change at the discretion of the Professor.