UTD	**Course**	**CS 6390 – 001**
	Professor	Dr. Kamil Sarac
	Term	Fall 2019
	Meetings	Monday/Wednesday 1pm to 2:15pm in ECSS 4.910

Professor's Contact Information

Office Phone	972 883 2337
Other Phone	n/a
Office Location	ECS South 4.207
Email Address	ksarac@utdallas.edu
Office Hours	Monday/Wednesday 11:30am to 12:30pm or by appointment at other times
Other Information	Course web page: http://www.utdallas.edu/~ksarac/acn/

Teaching Assistant Contact Information

Teaching Assistant	TBA
Phone	n/a
Email Address	TBA
Office Hours	TBA

General Course Information

Pre-requisites, Co-requisites, & other restrictions	CS 4390 or CS5390 or equivalent; C/C++ or Java programming skills; working knowledge of a UNIX-based operating system
Course Description	In this course, we will cover both the classical/fundamental topics in computer networks and a number of current/recent research topics related to modern computer networks. Most of the advanced research topics are relevant to Internet related research topics and they are mostly in Layer 3 and above (we will not be looking at problems in DLL or in physical layer). Most of the classical topics will be covered following the Peterson and Davie book. The research topics will be covered by reading/following the research papers (I will provide a list of papers with pointers to soft copies). Most of the class will be on Network Layer, Transport Layer and Application Layer issues. We will follow the order in the text book and use relevant research papers to cover fundamentals and important details. Toward the end of the semester, we will cover a number of recent and current networking research areas by reading several relevant research papers. The main goal in this part will be to expose students to several ongoing active research areas in networking.
Learning Outcomes	Internet inter-domain routing Internet multicast Congestion control Quality of service scheduling Mobile computing Peer-to-peer systems Network programming
Required/Recommended Texts & Materials	• Computer Networks, A Systems Approach, 5th Ed., by Peterson and Davie, Publisher: Morgan Kaufmann (RECOMMENDED) • A number of research papers will be available from the course web page
Suggested Texts, Readings, & Materials	References: o M. Donahoo and K. Calvert, "Pocket Guide to TCP/IP Sockets (C

	Version)", Morgan Kaufmann, 1st edition. o M. Donahoo and K. Calvert, "TCP/IP Sockets in Java: Practical Guide for Programmers", Morgan Kaufmann, 1st edition. o W. R. Stevens, "UNIX Network Programming, Volume 1: Networking APIs -- Sockets and XTI", 2nd edition. o C. Huitema, "Routing in the Internet", Prentice Hall, 2nd edition. o R. Perlman, "Interconnections, Bridges, Routers, Switches, and Internetworking Protocols", Addison Wesley, 2nd edition.

Assignments & Academic Calendar

TBD	Exam 1
Week of Dec 2nd	Project demos
Final exam date	Exam 2
Please see the course schedule page at www.utdallas.edu/~ksarac/acn/Schedule.htm for more details	

Course Policies

Grading (credit) Criteria	Exam 1 & 2: 30% each Homework Assignments: 25% total (6%, 7%, 7%, 5% for HW 1, 2, 3, 4 respectively) Programming Project: 15% - *Mandatory to complete & turn in for a pass grade*
Make-up Exams	No make-up exams unless in case of an emergency situation such as health emergency or similar un-avoid-able situations and you need to provide convincing documentation for it.
Extra Credit	n/a
Late Work	No late homework is accepted. All work should be turned in on time.
Class Attendance	**The below stated CS Department policy applies:** Three consecutive absences lead to one letter grade drop. Four consecutive absences lead to an F
Classroom Citizenship	Class participation in terms of asking questions is highly encouraged. Please do not hesitate to ask questions no matter how simple you might think the answer could be. This type of interaction helps improve the effectiveness of the class and breaks the monotony.
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.