UTD	Course	CS 4390 – 5U1
	Professor	Dr. Kamil Sarac
	Term	Summer 2009
	Meetings	Tuesdays/Thursdays at 5:30pm in ECSS 2.203

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	Tuesdays/Thursdays 4:00 pm – 5:00pm and by appointment at other times	
Other Information	• I don't read WebCT e-mail – please use my UTD e-mail above	
	• Course web page: http://www.utdallas.edu/~ksarac/cn/	

Teaching Assistant Contact Information

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

General Course Information

General Course Information	
Pre-requisites, Co- requisites, & other restrictions	CS CS/SE 4345; C/C++ or Java programming skills; working knowledge of a UNIX-based operating system
Course Description	This course is an introductory course on computer networks. Using the Internet as a vehicle, this course introduces the underlying concepts and principles of modern computer networks with emphasis on protocols, architectures, and implementation issues. The main goal of this course is to understand layering in computer networks, understand different protocol stacks (OSI and TCP/IP), understand functions and protocols within a layer, understand how layers fit together and finally understand how the Internet works. In addition, you will also experience with (i) writing simple network applications and (ii) learning exactly what is going on inside the Internet by looking at frames/packets/segments and identifying each bit.
Learning Objectives	Ability to understand the need for and structure of the OSI, TCP/IP network models Ability to design and evaluate methods for the framing messages in transmission media Ability to analyze and evaluate different error detection schemes Ability to understand and evaluate stop-and-wait, sliding window protocols Ability to understand and evaluate multiple-access protocols Ability to design and evaluate routing protocols Ability to design and evaluate flow control and congestion control protocols Ability to understand the issues in internetwork design Ability to understand the various Internet protocols (TCP/IP) Ability to write networking protocols
Required Texts & Materials	Computer Networking, A Top-Down Approach, 4 th edition by James Kurose and Keith Ross
Suggested Texts, Readings, &	References: o M. Donahoo and K. Calvert, "Pocket Guide to TCP/IP Sockets (C

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

Assignments & Academic Calendar

June 9	Quiz 1
June 25	Exam 1
July 14	Quiz 2
July 30	Exam 2
Please see the course schedule page at www.utdallas.edu/~ksarac/cn/Schedule.htm for more details	

Course Policies

Exam 1: 25%	Course Policies	
Quiz 1 & 2: 10% each		Exam 1: 25%
Criteria Homework 1: 7% Homework 2-4: 6% each		Exam 2: 30%
Homework 1: 1% Homework 2-4: 6% each 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 No late work accepted Special Assignments Class Attendance 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. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		Quiz 1 & 2: 10% each
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		
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		Homework 2-4: 6% each
Extra Credit n/a		No make-up exams unless in case of an emergency situation such as health
Late Work No late work accepted Special Assignments	Make-up Exams	emergency or similar un-avoid-able situations and you need to provide convincing
Extra Credit Late Work No late work accepted		
Class Attendance Strongly encouraged	Extra Credit	
Class Attendance		No late work accepted
Class Attendance 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. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		•
Class Attendance 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. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		n/a
Classroom Citizenship 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. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		Strongly encouraged
This type of interaction helps improve the effectiveness of the class and breaks the monotony. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		
monotony. Field Trip Policies The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, A to Z Guide, which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3, and in Title V, Rules on Student Services and Activities of the university's Handbook of Operating Procedures. Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and	Classroom	hesitate to ask questions no matter how simple you might think the answer could be.
The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and	Citizenship	This type of interaction helps improve the effectiveness of the class and breaks the
The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		monotony.
The University of Texas System and The University of Texas at Dallas have rules and regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and	Field Trip	
regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year. Student Conduct and Discipline The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and		ln/a
		regulations for the orderly and efficient conduct of their business. It is the responsibility of each student and each student organization to be knowledgeable about the rules and regulations which govern student conduct and activities. General information on student conduct and discipline is contained in the UTD publication, <i>A to Z Guide</i> , which is provided to all registered students each academic year. The University of Texas at Dallas administers student discipline within the procedures of recognized and established due process. Procedures are defined and described in the <i>Rules and Regulations, Board of Regents, The University of Texas System, Part 1, Chapter VI, Section 3</i> , and in Title V, Rules on Student Services and Activities of the university's <i>Handbook of Operating Procedures</i> . Copies of these rules and regulations are available to students in the Office of the Dean of Students,

	citizenship. He or she is expected to obey federal, state, and local laws as well as the Regents' Rules, university regulations, and administrative rules. Students are subject to discipline for violating the standards of conduct whether such conduct takes place on or off campus, or whether civil or criminal penalties are also imposed for such conduct.
Academic Integrity	The faculty expects from its students a high level of responsibility and academic honesty. Because the value of an academic degree depends upon the absolute integrity of the work done by the student for that degree, it is imperative that a student demonstrate a high standard of individual honor in his or her scholastic work. Scholastic dishonesty includes, but is not limited to, statements, acts or omissions related to applications for enrollment or the award of a degree, and/or the submission as one's own work or material that is not one's own. As a general rule, scholastic dishonesty involves one of the following acts: cheating, plagiarism, collusion and/or falsifying academic records. Students suspected of academic dishonesty are subject to disciplinary proceedings. Plagiarism, especially from the web, from portions of papers for other classes, and from any other source is unacceptable and will be dealt with under the university's policy on plagiarism (see general catalog for details). This course will use the resources of turnitin.com, which searches the web for possible plagiarism and is over
Email Use	The University of Texas at Dallas recognizes the value and efficiency of communication between faculty/staff and students through electronic mail. At the same time, email raises some issues concerning security and the identity of each individual in an email exchange. The university encourages all official student email correspondence be sent only to a student's U.T. Dallas email address and that faculty and staff consider email from students official only if it originates from a UTD student account. This allows the university to maintain a high degree of confidence in the identity of all individual corresponding and the security of the transmitted information. UTD furnishes each student with a free email account that is to be used in all communication with university personnel. The Department of Information Resources at U.T. Dallas provides a method for students to have their U.T. Dallas mail forwarded to other accounts.
Withdrawal from Class	The administration of this institution has set deadlines for withdrawal of any college-level courses. These dates and times are published in that semester's course catalog. Administration procedures must be followed. It is the student's responsibility to handle withdrawal requirements from any class. In other words, I cannot drop or withdraw any student. You must do the proper paperwork to ensure that you will not receive a final grade of "F" in a course if you choose not to attend the class once you are enrolled.
Student Grievance Procedures	Procedures for student grievances are found in Title V, Rules on Student Services and Activities, of the university's <i>Handbook of Operating Procedures</i> . In attempting to resolve any student grievance regarding grades, evaluations, or other fulfillments of academic responsibility, it is the obligation of the student first to make a serious effort to resolve the matter with the instructor, supervisor, administrator, or committee with whom the grievance originates (hereafter called "the respondent"). Individual faculty members retain primary responsibility for assigning grades and evaluations. If the matter cannot be resolved at that level, the grievance must be submitted in writing to the respondent with a copy of the respondent's School Dean. If the matter is not resolved by the written response provided by the respondent, the

student may submit a written appeal to the School Dean. If the grievance is not resolved by the School Dean's decision, the student may make a written appeal to the Dean of Graduate or Undergraduate Education, and the deal will appoint and convene an Academic Appeals Panel. The decision of the Academic Appeals Panel is final. The results of the academic appeals process will be distributed to all involved parties.

Copies of these rules and regulations are available to students in the Office of the Dean of Students, where staff members are available to assist students in interpreting the rules and regulations.

Incomplete Grades

As per university policy, incomplete grades will be granted only for work unavoidably missed at the semester's end and only if 70% of the course work has been completed. An incomplete grade must be resolved within eight (8) weeks from the first day of the subsequent long semester. If the required work to complete the course and to remove the incomplete grade is not submitted by the specified deadline, the incomplete grade is changed automatically to a grade of $\underline{\mathbf{F}}$.

The goal of Disability Services is to provide students with disabilities educational opportunities equal to those of their non-disabled peers. Disability Services is located in room 1.610 in the Student Union. Office hours are Monday and Thursday, 8:30 a.m. to 6:30 p.m.; Tuesday and Wednesday, 8:30 a.m. to 7:30 p.m.; and Friday, 8:30 a.m. to 5:30 p.m.

The contact information for the Office of Disability Services is: The University of Texas at Dallas, SU 22 PO Box 830688 Richardson, Texas 75083-0688 (972) 883-2098 (voice or TTY)

Disability Services

Essentially, the law requires that colleges and universities make those reasonable adjustments necessary to eliminate discrimination on the basis of disability. For example, it may be necessary to remove classroom prohibitions against tape recorders or animals (in the case of dog guides) for students who are blind. Occasionally an assignment requirement may be substituted (for example, a research paper versus an oral presentation for a student who is hearing impaired). Classes enrolled students with mobility impairments may have to be rescheduled in accessible facilities. The college or university may need to provide special services such as registration, note-taking, or mobility assistance.

It is the student's responsibility to notify his or her professors of the need for such an accommodation. Disability Services provides students with letters to present to faculty members to verify that the student has a disability and needs accommodations. Individuals requiring special accommodation should contact the professor after class or during office hours.

Religious Holy Davs

The University of Texas at Dallas will excuse a student from class or other required activities for the travel to and observance of a religious holy day for a religion whose places of worship are exempt from property tax under Section 11.20, Tax Code, Texas Code Annotated.

The student is encouraged to notify the instructor or activity sponsor as soon as possible regarding the absence, preferably in advance of the assignment. The student, so excused, will be allowed to take the exam or complete the assignment within a reasonable time after the absence: a period equal to the length of the absence, up to a

	maximum of one week. A student who notifies the instructor and completes any
	missed exam or assignment may not be penalized for the absence. A student who fails
	to complete the exam or assignment within the prescribed period may receive a
	failing grade for that exam or assignment.
	If a student or an instructor disagrees about the nature of the absence [i.e., for the
	purpose of observing a religious holy day] or if there is similar disagreement about
	whether the student has been given a reasonable time to complete any missed
	assignments or examinations, either the student or the instructor may request a ruling
	from the chief executive officer of the institution, or his or her designee. The chief
	executive officer or designee must take into account the legislative intent of TEC
	51.911(b), and the student and instructor will abide by the decision of the chief
	executive officer or designee.
	Off-campus, out-of-state, and foreign instruction and activities are subject to state law
Off-Campus	and University policies and procedures regarding travel and risk-related activities.
Instruction and	Information regarding these rules and regulations may be found at
Course Activities	http://www.utdallas.edu/BusinessAffairs/Travel Risk Activities.htm.
	Additional information is available from the office of the school dean.
	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

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