# **University of North Texas at Dallas**

# **Syllabus**

CSCE 3520		Data Communications (3 Hrs)			Fall 2016	
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<b>Department:</b> Mathematic		s and Information Sciences	School:	Liberal Arts and	Life Sciences	
Instructor name:		Dr. Saif Al Sultan				
Office Location:		Founders Hall 222				
Office Phone:		972-338-1539				
Email Address:		Saif.alsultan@untdallas.edu				
Office Hours:		TuTh 10:00 AM –11:00 AM&1:00 PM – 2:00PM				
		MW 12:00 PM – 2:00PM <b>Or by appointments</b>				
Classroom Time & Location:		W: 5:30PM - 8:30PM in DAL1 312				
Course Catalog Description:		Overview of data communication, communication models and				
		networking. Analog and digital data transmission, transmission				
		impairments, channel capacity, asynchronous and synchronous				
		transmission, error detection and correction, flow control and error				
		control. Multiplexing and de-multiplexing techniques (FDM, STDM, ADSL,				
		and xDSL). Ethernet interfaces, IEEE 802.3 and IEEE 802.11 MAC layer.				
		Interface Standards (RS-232, RS-449 and X.21). Packet switching, Frame				
		Relay, and ATM switching, br	idges, layer2	and layer3 switch	ies.	
Prerequisites:		CSCE 3600				
Required Text:		<ul> <li>Business Data Communications by Agrawal, 2011,</li> </ul>				
		ISBN: 978047048336	7, John Wile	y & Sons, Incorpor	ated.	
Recommended Texts and		'				
References:						
Access to Learning		UNT Dallas Library:				
Resources:		phone: (972) 780-3625;				
		web: <a href="http://www.unt.edu/unt-dallas/library.htm">http://www.unt.edu/unt-dallas/library.htm</a>				
		UNT Dallas Bookstore:				
		phone: (972) 780-3652;				
		e-mail: 1012mgr@fheg.folle	tt.com			
Course Goals:						

#### **Course Goals:**

- To develop students' skills in data communication and computer networks.
- Student will learn about the underlying technologies and standards that computer networks built upon.
- Students will be familiar with the available communication media, network topologies, and protocols.

## **Student Learning Outcomes:** Upon successful completion of this course, the student will be able to:

- Explain the basic principles of computer networks and data communications technologies.
- Demonstrate an understanding of wired and wireless networks and the techniques used for data transmission.
- Apply the theoretical aspect of network addressing and sub netting in order to assign addresses to newly developed network.

#### **Course Outline**

Priority will be given to understanding the material in depth. This schedule is subject to change by the instructor, any changes to this schedule will be announced in class.

Date	Topics	Weeks
8/24	Introduction to Data Communications and Computer Networks	Week 1
8/31	Physical Layer	Week 2
9/7	Physical Layer	Week 3
9/14	Data Link Layer	Week 4
9/21	Data Link Layer	Week 5
9/28	Exam 1	Week 6
10/5	Network Layer	Week 7
10/12	Network Layer	Week 8
10/19	Transport Layer	Week 9
10/26	Transport Layer	Week 10
11/2	Exam 2	Week 11
11/9	Application Layer	Week 12
11/16	Application Layer	Week 13
11/23	Wide Area Networks	Week 14
11/30	Review	Week 15
Final Exam	TBD	

#### **Course Evaluation Methods**

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course. This following matrix is subject to change by the instructor, any changes to this schedule will be announced in class.

### **Grading Matrix**

Assessment method	Points	Total
Assignments/Quizzes	Assignments/Quizzes will be given on each topic with different weights.	30%
Exam 1	20%	20%
Exam 2	25%	25%
Exam 3	25%	25%
Total:		100%

The following standard grading scale will be used to determine your final letter grade:

A = 90% or better

B = 80 - 89 %

C = 70 - 79 %

D = 60 - 69 %

F = less than 60%

#### **University Policies and Procedures**

#### Students with Disabilities (ADA Compliance):

Chapter 7(7.004) Disability Accommodations for Students

The University of North Texas at Dallas makes reasonable academic accommodation for students with disabilities. Students seeking accommodations must first register with the Disability Services Office (DSO) to verify their eligibility. If a disability is verified, the DSO will provide you with an accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request accommodations at any time, however, DSO notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet/communicate with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Disability Services Office website at <a href="http://www.untdallas.edu/disability">http://www.untdallas.edu/disability</a>. You may also contact them by phone at 972-338-1777; by email at UNTDdisability@untdallas.edu or at Building 2, room 204.

#### **Course Evaluation Policy:**

The student evaluation of teaching effectiveness is a requirement for all organized classes at UNT Dallas. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider a student's evaluation to be an important part of your participation in this class.

#### **Assignment Policy:**

All assignments are due in class on the due dates stated on the assignments. No late assignments will be accepted, except for documented emergencies. All assignments are to be done individually unless stated otherwise on the assignment.

#### Make-Up Exams:

Exams should be taken as scheduled. No makeup examinations will be allowed, except for documented emergencies (See Student Handbook).

#### **Email Policy:**

Use your Blackboard email account to contact me. You should check your email every day as you are responsible for all information I send out. Due to privacy rights, I will not discuss grades over the phone and I will only answer emails from your Blackboard account.

#### **Academic Integrity:**

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of Academic Integrity policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Academic Integrity at <a href="http://www.untdallas.edu/sites/default/files/page\_level2/pdf/policy/7.002%20Code%20of%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20Code%20Academic\_level2/pdf/policy/7.002%20C

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, fabrication of information or citations, facilitating acts of dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students.

#### **Inclement Weather Policy:**

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website www.unt.edu/dallas. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

#### **Attendance and Participation Policy:**

The University attendance policy is in effect for this course. Class attendance and participation is mandatory because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class

notes, if they are absent. Successfully completing this class is a function of many factors. Two such factors are class attendance and assignment completion.

### **Diversity/Tolerance Policy:**

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Office of Student Life as the instructor deems appropriate.

#### **Cell Phones:**

Cell Phone use (or ringing) in class is strictly prohibited.