

Course	ITM 5100 LC Information and Communications Systems & Networks
Term	Spring I, 2010, Lackland AFB
Instructor	Name: Brian Anderson Phone: (210) 522-6696 wk/ (830) 714-4840 hm Email: BrianAnderson97@webster.edu
Catalog Description	This course introduces students to the technical aspects of information and communications networks and technology. The course focuses on the interdependencies among information and communications technologies and architectures. Emphasis will be placed on the fundamentals of networks (LAN and WAN).
Prerequisites	ITM 5000 – Information Technology Management - Overview
Course Level Learning Outcomes	After completing this course, students will: <ul style="list-style-type: none"> • know and explain the important technical terminology, concepts, principles, techniques, and theories related to the technical aspects of information and communications networks and technologies, with an emphasis on the fundamentals of networks (LAN and WAN). • explain the interdependencies among information and communications technologies and architectures. • have the technical knowledge and background needed to explain data and voice communications systems and networks, and the interconnectedness of these technologies
Materials	Text: <i>Data Communications and Computer Networks: A Business User's Approach</i> , 5 th edition Author(s): Curt White Publisher: Course Technology ISBN: 142390303X
Grading	<ul style="list-style-type: none"> • Participation/Homework 20% • Case Exercise 15% • Project Exercise 15% • Mid Term Exam 25% • Final Exam 25%
Activities	<p>General Information: Students are expected to attend all class meetings and participate in class discussions. Students who miss a class because of work reasons should bring a copy of your orders or a letter from your supervisor. Specific information on the content and format of all student produced products will be distributed at the beginning of the term.</p> <p>Case Exercise: Each student will complete and present a case study of an emerging communications system or networking trend. This assignment is to be accomplished outside of class. A written and oral presentation is due at class in</p>

	<p>week four. Additional guidance will be handed out in class.</p> <p>Project Exercise: Each student will accomplish a communications / networking project. A written and oral presentation is due at class in week eight. Additional guidance will be handed out in class.</p> <p>This project requires a significant effort outside of class working a real world project.</p> <p>The combination of weekly class preparation, case work, and project activities will require approximately twelve hours of study outside of class.</p>
<p>Policy Statements:</p> <p>University Policies</p>	<p>University policies are provided in the current course catalog and course schedules. They are also available on the University website. This class is governed by the University’s published policies. The following policies are of particular interest:</p> <p>Academic Honesty: The University is committed to high standards of academic honesty. Students will be held responsible for violations of these standards. Please refer to the University’s academic honesty policies for a definition of academic dishonesty and potential disciplinary actions associated with it.</p> <p>Drops and Withdrawals: Please be aware that, should you choose to drop or withdraw from this course, the date on which you notify the University of your decision will determine the amount of tuition refund you receive. Please refer to the University policies on drops and withdrawals (published elsewhere) to find out what the deadlines are for dropping a course with a full refund and for withdrawing from a course with a partial refund.</p> <p>Special Services: If you have registered as a student with a documented disability and are entitled to classroom or testing accommodations, please inform the instructor at the beginning of the course of the accommodations you will require in this class so that these can be provided.</p> <p>Disturbances: Since every student is entitled to full participation in class without interruption, disruption of class by inconsiderate behavior is not acceptable. Students are expected to treat the instructor and other students with dignity and respect, especially in cases where a diversity of opinion arises. Students who engage in disruptive behavior are subject to disciplinary action, including removal from the course.</p> <p>Student Assignments Retained: From time to time, student assignments or projects will be retained by the department for the purpose of academic assessment. In every case, should the assignment or project be shared outside the academic department, the student's name and all identifying information about that student will be redacted from the assignment or project.</p> <p>Contact Hours for this Course: It is essential that all classes meet for the full instructional time as scheduled. A class cannot be shortened in length. If a class session is cancelled for any reason, it must be rescheduled.</p>
<p>Course Policies</p>	<p>Attendance at all class sessions is expected.</p> <p>Late assignments will be accepted if prior arrangements have been made with the instructor, but will be given reduced points based upon the number of class sessions it is late.</p>

Weekly Schedule		Pre-Assignment for Week 1 <ul style="list-style-type: none"> • Read Chapters 1, 2
	Week 1	Topics: <ul style="list-style-type: none"> • Introduction to the course (Requirements, Schedule, Case Study, etc.) • Intro to Computer Networks and Data Comm – Ch 1 • Fundamentals of Data and Signals – Ch 2 Assignment for Week 2: <ul style="list-style-type: none"> • Read Chapters 3, 4
	Week2	Topics: <ul style="list-style-type: none"> • Conducted and Wireless Media – Ch 3 • Making Connections – Ch 4 Assignment for Week 3: <ul style="list-style-type: none"> • Read Chapters 5, 6
	Week 3	Topics: <ul style="list-style-type: none"> • Efficient Connections: Muxing and Compression – Ch 5 • Errors, Error Detection, and Error Control – Ch 6 Assignment for Week 4: <ul style="list-style-type: none"> • Read Chapters 7,8 • Prepare Case Study Presentations: Oral and Written
	Week 4	Topics: <ul style="list-style-type: none"> • Case Presentations: Oral and Written • Local Area Networks: The Basics – Ch 7 • Local Area Networks: Internetworking – Ch 8 Assignment for Week 5: <ul style="list-style-type: none"> • Prepare for the Mid Term Exam (Chapters 1-8) • Read Chapter 9
	Week 5	Topics: <ul style="list-style-type: none"> • Mid Term Exam (Chapters 1-8) • Local Area Networks: Software and Support – Ch 9 Assignment for Week 6: <ul style="list-style-type: none"> • Read Chapter 10, 11
	Week 6	Topics: <ul style="list-style-type: none"> • Introduction to MANs and WANs – Ch 10 • The Internet – Ch 11 Assignment for Week 7: <ul style="list-style-type: none"> • Read Chapter 12, 13
	Week 7	Topics: <ul style="list-style-type: none"> • Voice and Data Delivery Networks – Ch 12 • Network Security – Ch 13 Assignment for Week 8: <ul style="list-style-type: none"> • Prepare Project Presentations: Oral and Written • Read Chapter 14

	Week 8	Topics: <ul style="list-style-type: none"> • Project Presentations: Oral and Written • Network Design and Management – Ch 14 Assignment for Week 9: <ul style="list-style-type: none"> • Prepare for the Final Exam (Chapters 9-14)
	Week 9	Topics: <ul style="list-style-type: none"> • Critique student projects • Final Exam (Chapters 9-14)
Additional Information	<i>Business Data Networks and Telecommunications</i> by Raymond Panko, Pearson Prentice Hall, ISBN: 0132214415	

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