DATA COMMUNICATION AND DISTRIBUTED NETWORKS

Disclaimer Statement

The final examination in this course will be remotely proctored. Please be sure you have your computer's camera on so you can display your photo identification so the proctoring system can verify your identity. If you run into any issues please reach out to your Success Coach.

You can also prepare for your examination by reading this helpful guide: https://www.talview.com/en/test-taker-guide

DCDN300 — Data Communication & Distributed Networks, 3.0 hours

PROFESSOR

Maurice C. Barnes is a Senior Database Administrator with the Department of Defense (DOD), where he has devoted 80 percent of his time improving department business practices and daily operating procedures.

Maurice has been a primary asset to the United States government in implementing the conversion from Hewlett Packard (HP) and Dell legacy hardware systems to virtual and cloud base infrastructures in an effort to improve productivity and efficiency while reducing cost.

Maurice is a frequent volunteer at multiple non-profit organizations throughout Autauga and Montgomery Counties in an effort to mentor young teenagers and adults.

CONTACT INFORMATION

E-mail: mbarnes@lakewood.edu
Cell Phone: 800-517-0857 X 708

ONLINE SUPPORT (IT) AND MOODLE NAVIGATION:

All members of the Lakewood University community who use the University's computing, information or communication resources must act responsibly. Support is accessible by calling 1-800-517-0857 option 2 or by emailing info@lakewood.edu

BOOKS AND RESOURCES

West, Jill. Data Communication and Computer Networks: A Business User's Approach. 9th Edition. Cengage Learning US, 2023.

EVALUATION METHOD

Graded work will receive a numeric score reflecting the quality of performance.
Course Requirement Summary

- **Assignments - Total of 60 Points**
- **Weekly discussion forums-Total of 80 Points**
- **Final Exam - 50 Points**

GRADING SCALE

Graded work will receive a numeric score reflecting the quality of performance as given above in evaluation methods. The maximum number of points a student may earn is 190. To determine the final grade, the student's earned points are divided by 190.

Your overall course grade will be determined according to the following scale:

A = (90% -100%)
B = (80% - 89%)
C = (70% - 79%)
D = (60% - 69%)
F < (Below 60%)

ACADEMIC INTEGRITY/ PLAGIARISM:

Cheating (dishonestly taking the knowledge of another person whether on a test or an assignment and presenting it as your work) and plagiarism (to take and pass off as one's own the ideas or writing of another) are a serious issue. While it is legitimate to talk to others about your assignments and incorporate suggestions, do not let others "write" your assignments in the name of peer review or "borrow" sections or whole assignments written by others. We do get ideas from life experiences and what we read but be careful that you interpret these ideas and make them your own.

I am aware that many types of assignments are available on the internet and will check these sources when there is legitimate suspicion.

Penalty is a zero on the assignment. In cases where there is a major or continuous breach of trust, further discipline, such as an "F" in the course, may be necessary.

The major consequence of any form of cheating is damage to your character and the result of trust and respect.

DISABILITY ACCOMMODATIONS

Students who have a disability and wish to request an academic accommodation should contact Jim Gepperth, the Disabilities Services Coordinator and Academic Dean. The student can request an accommodation at any time although it is encouraged to do so early in the enrollment process. The student should complete an accommodation request form which begins a conversation between the school and the student regarding the nature of their disability and an accommodation that would help the student succeed in their program. The school may request documentation regarding the disability to address the accommodation request effectively. The school will communicate to the student the type of accommodation arranged. This process typically follows a team approach, bringing together persons from the academic department (including the instructor) and personnel from other departments as necessary. Additional information on disability accommodations may be found in the Lakewood University Catalog.

Disability Services Email: disabilityservices@lakewood.edu

SUPPLEMENTAL TEXTS

You can use the following resources to assist you with proper source citation.

American Psychological Association Style Guide- https://www.mylakewoodu.com/pluginfile.php/118179/mod_resource/content/1/APA%20Style%20Guide%207th%20edition.pdf

The Purdue OWL website is also a helpful resource for students. Here is a link to the OWL website: https://owl.purdue.edu/owl/research_and_citation/apa_style/apa_formatting_and_style_guide/general_format.html

LIBRARY

Mary O'Dell is the Librarian on staff at Lakewood University

She is available by appointment. You can make an appointment with her by emailing her at modell@lakewood.edu or call at 1-800-517-0857 X 730

You may also schedule a meeting at this link: https://my.setmore.com/calendar#monthly/r3a761583354923270/01032020

She can assist you with navigating LIRN, research, citations etc.

SUPPORT

Each student at Lakewood University is assigned a Success Coach. Your Success Coach exists to assist you with academic and supportive services as you navigate your program. They will reach out to you, often, to check-in. Please use the resources they offer.

Student Services is available to assist with technical questions regarding Lakewood University and all services available to you.

1-800-517-0857 option 2
info@lakewood.edu
studentservices@lakewood.edu

CAREER SERVICES

Students are offered Career Services at any point as they journey their academics at Lakewood University.

1-800-517-0857 option 2
careerservices@lakewood.edu

LESSONS

TITLE	COURSE TOPIC	READINGS/ASSIGNMENTS	DUE	OBJECTIVES
Lesson #1	• Introduction to Computer Networks and Data Communications • Fundamentals of Data and Signal	Study Course Syllabus Read Chapters 1 & 2 Participate in the Discussion Forum Lesson Evaluation		Objective 1
TITLE	**COURSE TOPIC**	**READINGS/ASSIGNMENTS**	**DUE**	**OBJECTIVES**
Lesson #2	• Conducted and Wireless Media • Making Connections	Read Chapters 3 & 4 Participate in the Discussion Forum Lesson Evaluation		Objective 2
TITLE	**COURSE TOPIC**	**READINGS/ASSIGNMENTS**	**DUE**	**OBJECTIVES**
Lesson #3	• Making Connections Efficient: Multiplexing and Compression	Read Chapters 5 & 6 Participate in the Discussion Forum Complete Assignment 1 Lesson Evaluation	Assignment 1 upon completion of the lesson	Objective 3

	• Errors, Error Detection, and Error Control			
TITLE Lesson #4	**COURSE TOPIC** • Local Area Networks: Part I • Local Area Networks: Part II	**READINGS/ASSIGNMENTS** Read Chapters 7 & 8 Participate in the Discussion Forum Lesson Evaluation	**DUE**	**OBJECTIVES** Objective 4
TITLE Lesson #5	**COURSE TOPIC** • Introduction to Metropolitan Area Networks and Wide Area Networks • The Internet	**READINGS/ASSIGNMENTS** Read Chapters 9 & 10 Participate in the Discussion Forum Lesson Evaluation	**DUE**	**OBJECTIVES** Objective 5
TITLE Lesson #6	**COURSE TOPIC** • Voice and Data Delivery Networks	**READINGS/ASSIGNMENTS** Read Chapters 11 Participate in the Discussion Forum Assignment 2 Lesson Evaluation	**DUE** Assignment 2 upon completion of the lesson	**OBJECTIVES** Objective 6
TITLE Lesson #7	**COURSE TOPIC** • Network Security	**READINGS/ASSIGNMENTS** Read Chapters 12 Participate in the Discussion Forum Complete Assignment 3 Lesson Evaluation	**DUE**	**OBJECTIVES** Objective 7
TITLE Lesson #8	**COURSE TOPIC** • Network Design and Management	**READINGS/ASSIGNMENTS** Participate in the Discussion Forum Complete the Final Exam Request the Next Course Lesson Evaluation THANKS FOR A GREAT CLASS	**DUE** Final exam upon completion of the lesson	

DESCRIPTION

This course will provide students with a clear understanding of how networks, from LANs to the massive and global Internet, are built and how we can use computers to share information and communicate with one another. Topics included communication codes, transmission methods, interfacing, error detection, communication protocols, communications architectures, switching methods, and network types.

Program Objectives

1. **Define basic terminology of computer networks and the common examples of computer networks.**
2. **Distinguish between data and signals and differentiate between analog data and analog signals.**
3. **Understand the cabled and wireless media and their areas of application.**
4. **Explain how to interface computer to peripheral devices and the different forms of multiplexing.**
5. **Identify different types of noise in computer networks, detection techniques as well as prevention mechanisms.**
6. **Understand the primary function of LAN, basic components of wireless LAN and distinguish between MAN &WAN.**
7. **Describe the major Internet applications and services and the basic elements of a telephone system.**

8. **Recognize the basic forms of system attacks, techniques used to secure the network and how to design and manage the network.**

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