



WIRELESS AND MOBILE COMMUNICATION

WLMC300 — Wireless & Mobile Communication, 3.0 hours

PROFESSOR

Dr. Mia A. Simmons is a native of Atlanta, GA. Her Bachelors in computer Science and Master's in Information Technology degrees she received from North Carolina A&T SU. Dr. Simmons received her Doctoral Degree in Leadership and Organization in Information Systems before the age of 30 from the University of Phoenix.

She has held several corporate technical positions as a Software Engineer, Marketing Engineer, Business Process Analyst & Sr. Project Manager. She currently holds the position as the Business Continuity Risk Liaison, along with being the Engineering Professor at University of Akron. For 6 years, Dr. Simmons was the IT Department Chair & Advisor for South University in Warrensville Hts.

She loves being active in various organizations such as Zeta Phi Beta Sorority, Inc. She also holds the Operations Manager role for PURE Productions (non-profit theater organization). She has always had a passion for helping and developing individuals.

In 2015 she started a Big Sister Mentorship Program called Excellence of A Pearl (EOAP), where she focuses on building integrity and self Esteem for girls ages 10-18. Because of her persistence and trusting God, she started with only 8 girls & now she has over 45 in the program. Along with an In-School EOAP program at New Tech East, Richmond Hts., and Maple Heights School District. She is also the co-Founder of FIST, our young men's mentorship program.

CONTACT INFORMATION

E-mail: msimmons@lakewoodcollege.edu
Cell Phone: 800-517-0857 X 776

ONLINE SUPPORT (IT) AND MOODLE NAVIGATION:

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

BOOKS AND RESOURCES

Olenewa, Jorge L.; Guide to Wireless Communication. 4th Edition. Cengage 2017.

EVALUATION METHOD

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

- Assignments - 20 points each
- Weekly discussion forums- 10 points each
- Final Exam - 100 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 . To determine the final grade, the student's earned points are divided by .

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 | <ul style="list-style-type: none">Introduction to Wireless CommunicationsWireless Data Transmission | Study Course Syllabus Read Chapters 1 & 2 Participate in the Discussion Forum Lesson Evaluation | | Objective 1 |
| Lesson #2 | <ul style="list-style-type: none">Radio Frequency CommunicationsHow Antennas Work | Read Chapters 3 & 4 Participate in the Discussion Forum Lesson Evaluation | | Objective 2 |
| Lesson #3 | <ul style="list-style-type: none">Wireless Personal Area NetworksIntroduction to Wi-Fi WLANs | Read Chapters 5 & 6 Participate in the Discussion Forum Complete Assignment 1 Lesson Evaluation | Assignment 1 upon completion of the lesson | Objective 3 |
| Lesson #4 | <ul style="list-style-type: none">Enhancing WLAN PerformanceExpanding WLANs and WLAN Security | Read Chapters 7 & 8 Participate in the Discussion Forum Lesson Evaluation | | Objective 4 |

| TITLE | COURSE TOPIC | READINGS/ASSIGNMENTS | DUE | OBJECTIVES |
|-----------|---|---|--|-------------|
| Lesson #5 | <ul style="list-style-type: none"> Wireless Metropolitan Area Networks | Read Chapter 9 Participate in the Discussion Forum Complete Assignment 2 Lesson Evaluation | Assignment 2 upon completion of the lesson | Objective 5 |

| TITLE | COURSE TOPIC | READINGS/ASSIGNMENTS | DUE | OBJECTIVES |
|-----------|---|--|-----|-------------|
| Lesson #6 | <ul style="list-style-type: none"> Wireless Wide Area Networks | Read Chapters 10 Participate in the Discussion Forum Lesson Evaluation | | Objective 6 |

| TITLE | COURSE TOPIC | READINGS/ASSIGNMENTS | DUE | OBJECTIVES |
|-----------|---|---|--|-------------|
| Lesson #7 | <ul style="list-style-type: none"> Radio Frequency Identification and Near Field Communication | Read Chapters 11 Participate in the Discussion Forum Complete Assignment 3 Lesson Evaluation | Assignment 3 upon completion of the lesson | Objective 7 |

| TITLE | COURSE TOPIC | READINGS/ASSIGNMENTS | DUE |
|-----------|--|---|--|
| Lesson #8 | <ul style="list-style-type: none"> Wireless Communications Everywhere | Read Chapter 12 Participate in the Discussion Forum Complete the Final Exam Request the Next Course Lesson Evaluation THANKS FOR A GREAT CLASS | Final exam upon completion of the lesson |

DESCRIPTION

This course will help students develop an understanding of the basic and advanced principles of Wireless Communications and Mobile Networks. The issues of wireless communications and mobile networks in physical, link and network layers, the wireless channels, Multi-user communication systems, Mobile networks modeling, design and optimization will be covered in this course.

Program Objectives

1. Describe the various types of wireless communication technologies used today.
2. Explain the properties of waves.
3. List the basic components of a radio system.
4. Explain the purpose of an antenna.
5. Describe a wireless personal area network (WPAN).
6. Describe developments in the use of WLANs in multimedia distribution.
7. Define wireless metropolitan networks (WMANs) and explain why they are needed.
8. Explain the relationship of IoT to wireless technologies.

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