

University of Arkansas - Fort Smith
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General Syllabus

EETE 33003 Wireless Systems

Credit Hours : 3

Lecture Hours: 3

Laboratory Hours: 0

Prerequisites: ELTE 13503 Electrical Circuits and Components and ELTE 27503 Communication Systems

Effective Catalog: 2018-2019

I. Course Information

A. Catalog Description

Analysis of various wireless system formats and the concepts associated in their implementation. Multiple access schemes such as TDMA, FDMA and CDMA are covered as well as cell capacity, link budgets, handoff, interference, multi-path, system capacity and path loss.

B. Additional Information - None

II. Student Learning Outcomes

A. Subject Matter

Upon successful completion of this course, the student will be able to:

1. Analyze multi-access wireless systems.
2. Design a wireless system.
3. Generate wireless system capacities, link budgets and losses.
4. Understand the advantages and disadvantages of the various wireless systems.

B. University Learning Outcomes

This course enhances student abilities in the following areas:

Global and Cultural Perspectives

Students will reflect upon the history of wireless standards and technology and how wireless technology is implemented globally.

Analytical Skills

Quantitative Reasoning - Students will use their math and logic skills in solving complex electromagnetic system problems as applied to wireless systems.

III. Major Course Topics

- A. Multiple-access Systems
- B. Cell Capacity
- C. Link Budgets
- D. Wireless System Losses
- E. Wireless Handoffs