MURRAY STATE UNIVERSITY

DEPARTMENT OF INDUSTRIAL AND ENGINEERING TECHNOLOGY

COURSE NUMBER: TSM 321 CREDIT HOURS: 3

I. TITLE: Wireless Communication I

II. CATALOG DESCRIPTION:

An introductory course in wireless cellular and PCS mobile network design and deployment.

III. PURPOSE:

Build a foundation for fundamental techniques in design and operation, system coverage and traffic, path loss calculation, call processing, and mobility management in cellular and PCS wireless mobile networks.

IV. COURSE OBJECTIVES:

Build a good foundation for fundamental techniques in design, operation and deployment of cellular and PCS wireless mobile networks.

V. CONTENT OUTLINE:

- Basic structure of a celluar and PCS mobile network
- · RF engineering overview
- Cellular and PCS call processing
- Radio propagation and models
- Link budget and path loss
- RF traffic engineering
- Handoff

VI. INSTRUCTIONAL ACTIVITIES:

Lecture, Discussion and Demonstration

VII. FIELD, CLINICAL, AND/OR LABORATORY EXPERIENCES:

Field trips to cellular sites as possible, demonstration lab activities.

VIII. RESOURCES:

Course Blackboard Site, Web-page references, Class Notes

IX. GRADING PROCEDURES:

Section Exams (6 @ 100pts each) 100%

A - 90 to 100%

B - 80 to 89%

C - 70 to 79%

D - 60 to 69%

E - Below 60%

X. ATTENDANCE POLICY:

This course will adhere to the policy published in the current MSU Undergraduate Bulletin. In addtion I will enforce the following policies:

- Unexcused absences are those that do not fall into the definition of excused in the university Policy on Attendance. Documentation will be required.
- 3 unexcused absences final grade lowered by one letter grade
- 6 unexcused absences a failing grade will be assigned for the course.

XI. ACADEMIC HONESTY POLICY:

This course will adhere to the policy published in the currentMSU Undergraduate Bulletin.

XII. TEXT AND REFERENCES:

All reading material will be provided by instructor.

XIII. PREREQUISITES:

TSM-320

XIV. STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or other provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities.