

## School Of Business and Management

**Course No. :** INSS 391

**Course Title:** Data Communications and Computer Networks

**Semester:** Spring, 2015

**Lecturer:** Dr. Samuel Ejiaku

**Office:** McMechen, Room 105

**Office Hours:** M,WF, 10 – 1pm; Tues 12 noon - 1pm.

**Office Phone:** (443) 885 3099

### **Course Description:**

The purpose of this course is to provide a comprehensive review of the basic business data communications and network fundamentals. The student will learn how to identify, analyze, and propose possible communication solutions to a variety of simple problems. The student will also learn the fundamentals of communication protocols, telecommunication systems, local area networks and the enterprise network.

The course material will include logical thinking projects and problems that will highlight the theoretical concepts covered in class. Students will be required to discuss critical issues, propose possible solutions, and present these solutions in papers or oral presentations or class exercises.

**Prerequisites:** INSS 360

### **Course Materials:**

Required Textbooks:

Dean, Tamara : Network+ Guide to Networks, 6<sup>th</sup> Edition

### **Course Objectives and Assurance of Learning**

The Objectives and Goals of this course are:

- Describe the basic components of a telecommunication and network systems and the OSI Model.
- Identify security problems that affect a network system and their solutions
- Let students understand the importance and strategic role of Data Communication and Networks in society and business.
- Describe the process of designing telecommunication networks systems (LAN)

- Introduce telecommunication hardware and software requirements necessary for meeting various business and user requirements.

The Learning Outcomes for the Students are:

1. Understand different Protocols, Topologies and Operating Systems
2. Understand the layered architectures of the OSI and TCP/IP Models
3. Understand Basic Network Connectivity
4. Understand Subnet and Ethernet Technology
5. Understand Basic data transmission security problems and their solutions
6. Students should be able to access, evaluate and select the right hardware and software for a Network System used in a Small Organization (LAN)
7. Students should be able to design a Local Area Network (LAN)

Progress during the semester shall be determined by the results of various tests, assignments and projects submitted. Exams, tests and assignments are the measuring instruments for the determination of students' proficiencies. Students are encouraged to constantly check their progress with the Instructor.

**Assessment and Grading Policies**

Assessment is on a continuous basis to assure that learning is taking place. The final grade is cumulative of the student's progress during the semester, based on the scheme below:

Pretest: This is to test the students' previous knowledge of the course contents

Network Design Project	15%
First Quiz	10%
Midterm Exam	20%
Second Quiz	10%
Final Examination	25%
Security Test/Case Studies	20%
Total	100%

**Course Approach**

Students will be expected to complete reading assignments prior to attending class. All papers and laboratory assignments must be submitted by the end of the day due.

## **Course Policy**

### **Make-up Exams and Incomplete:**

No make-up exams or quizzes will be given except in cases of documented sickness by a Medical Doctor or documented family emergency or approved absence from the University. Incomplete grade will only be given under the following conditions: A student must have attended class regularly, completed all the exercises, quizzes, and exams up to the last two weeks of that semester, and has a cumulative passing grade in that course up to the last two weeks of that semester. In addition, there must also be documented evidence explaining the nature of the emergency and reasons why the student has to drop out in the last two weeks of the semester.

### **Course Withdrawal Policy:**

You may drop this course anytime, up to the University drop date.

### **Cheating:**

Any student who cheats during an examination, or who assists another student in cheating during an examination will automatically fail the course. Any student guilty of plagiarism will result in an "F" grade or expulsion.

### **Participation – Lateness**

Attendance is taken at the beginning and/or the end of class. A negative mark is assessed each time attendance is taken and you are not present. Three (3) negative marks equal one numerical grade point deduction from your overall points.

## **NOTICE OF PROHIBITED CONDUCT**

The Morgan State University code of student conduct prohibits disruptive, disorderly or reckless behavior in educational settings. Prohibited conduct includes but not limited to, use of wireless communication devices, (example, the use or sound of cell phones in the class), bringing unregistered persons to class, eating, smoking, persistently speaking without being called upon, refusing to be seated, or disruptions caused by leaving and entering the class without authorization from the Instructor. All cell phones must be kept out of sight when you are in the class room. Depending on the nature of the disorderly conduct, sanctions may include removal from the class room, laboratory etc, suspension, expulsion and/or referral to appropriate state or federal agencies.

**Tentative Course Schedule**  
Syllabus is subject to modification

**TOPIC**

An Introduction to Computer Network

Networking Standards and the OSI Model

Transmission Basics and Networking Media

Topologies and Ethernet Standards

Local Area Networks: Connectivity

Introduction to TCP/IP Protocols

In-depth TCP/IP Networking

Wireless Networking and Cloud Computing

Network Security: Ensuring Integrity and Availability