

# **CDA 4500 – Introduction to Data Communications Fall 2004**

## **Course Description**

This course provides an introduction to fundamental concepts in the design of data communications networks, networking protocols, and applications. Topics to be covered include network architectures, physical media, protocols for data link, network, transport, and application layers.

## **Textbook**

*Data Communications and Networking*, 3<sup>rd</sup> ed., Behrouz A. Forouzan, McGraw-Hill, 2004

## **Reference**

*Computer Networks*, 4<sup>th</sup> ed., Andrew Tanenbaum, Prentice Hall, 2003.

*Data and Computer Communications*, 7<sup>th</sup> ed., William Stallings, Prentice Hall, 2004.

## **Instructor**

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## **Course Objectives**

1. To learn the basic concepts of data communications.
2. To learn the layered architecture of communication protocols.
3. To learn digital signal transmission and encoding techniques.
4. To learn multiplexing techniques.
5. To learn the concepts and techniques in error detection and correction.
6. To learn data link control and its related protocols.
7. To learn LAN architectures and systems.
8. To learn switching techniques.
9. To learn the main protocols and standards of the Internet.
10. To learn basic concepts of internetworking, addressing, and routing.

## **Prerequisites:**

COP 3530 Data Structures and Algorithm Analysis

## **Topics:**

1. Overview of Data Communications and Networking
2. Physical Layer
3. Data Link Layer
4. Network Layer
5. Transport Layer
6. Application Layer
7. Security

**Class Time**

TR 9:30 – 10:50 AM

**Grading**

Assignments ..... 25%

Exams .....75%

**Notes:**

**• Blackboard**

The course web site containing Lecture Notes, Assignments, Announcements, etc will be maintained on [Blackboard](#).

**• Assignment Submission**

Assignments are due at the beginning of the class.

Late assignments will be penalized with 10% every day. Assignments more than 3 days late will not be accepted.

**• Accommodation**

Students who need accommodations because of a disability should make up an appointment with Office of Students with Disabilities OSD (561-297-3880) and follow all OSD procedures.

**• Academic Ethics**

Students are required to adhere to the policy on [Academic Irregularities and Students' Academic Grievances](#) imposed by the FAU.