Introduction to Telecommunications  Tech 1500-01

Instructor: Dr. Jing-Chiou Liou  
Phone: (908) 737-3803  
Room: HH217  
Email: jliou@kean.edu

Class Room: Tech. H101

Class Hours: Tuesday 12:30 – 01:45PM and Thursday 12:30 – 02:50PM

Office Hours: Monday – Thursday. Details provided separately.

Instruction Method: Lecture & Lab.

Textbook:

PowerPoint slides will be used in class.

Grading:  
Homework (12+1) 20%  Midterm 25%  
Final 25%  Lab. (6 reports) 30%

Course Description & Objectives:
This course will cover a broad range of technical topics from the nature of data and data transmission systems to protocols and data networks.

Upon completion of the course, we will be able to distinguish the difference between analog and digital data transmission, understand and utilize various transmission codes, media and protocols in data communication networks/systems, apply the RS-232 serial interface in data communication applications, Describes the characteristics of Local Area Networks (LANs), wireless networking and various error detection techniques.

Homework Assignments (HAs) and Lab. Report (LRs) submission policy:
• Students are expected to submit HA and/or LR in the following week of the session, unless is mentioned otherwise.
• Late submission is allowed for up to a week delay, with a 10% deduction in grade.

Important University Dates:
1/26/10: Last day to withdraw w/ 100% refund
2/03/10: Last day to withdraw w/ 75% refund

Academic Integrity Policy: http://www.kean.edu/forms/AcademicIntegrity.pdf
Tutoring and learning Support services: http://www.kean.edu/~castutor
Schedule:
1/19&1/21: Overview: Introduction to Data Communications/Telecommunications
1/26&1/28: Network Models
2/2&2/4: Data and Signals
2/9: Digital and Analog Transmission.
2/11: Lab Introduction 1: Procedures/Safety, Equipment and Devices
2/16: Transmission Media
2/18: Lab Introduction 2: RS232 Serial Interface
2/23: Bandwidth Utilization
2/25: RS232 Application 1
3/2: Switching and Data Transmission in Telephone and Cable Networks
3/4: Course Review
3/11: Midterm Review
3/23: Error Detection/Correction
3/25: Data Link Control
3/30: Multiple Access
4/1: RS232 Application 2
4/6: Wired LANs
4/8: RS232 Application 3
4/13: Wireless LANs
4/15: Lab Introduction 3: Cable and Fiber
4/20: SONET/SDH
4/22: Data Communication Application 1 - Cable
4/27: Virtual-Circuit Networks: FR and ATM
4/29: Data Communication Application 2 - Fiber
5/4: Course Review
5/6: Final Exam