REGULAR COURSE SYLLABUS

School of: Professional Studies

Department: Engineering Technology

CIP Code: 15.0303

Prefix & Course Number: EET 4330

Course Title: Data Communications

Check All That Apply: Required for Major: _____ Required for Minor: _____ Specified Elective: X

Required for Concentration: X  Elective: X  Service Course: ______

Required for Certificate: X

Credit Hours: 3  (2+2)

Total Contact Hours per semester (assuming 15-16 week semester):

Lecture 30  Lab 30  Internship _____  Practicum _____  Other (please specify type and hours):

Schedule Type(s): B  Grading Mode(s): L

Variable Topics Courses (list restrictions, including the maximum number of hours that can be earned**):

**NOTE: This information must be included in the course description.

Restrictions (Variable Topics Course):

Prerequisite(s): EET 2310, with a grade of “C” or better.

Corequisite(s):

Prerequisite(s) or Corequisite(s):

Banner Enforced:

Prerequisite(s): EET 2310, with a grade of “C” or better.
Corequisite(s):
Prerequisite(s) or Corequisite(s):

Catalog Course Description:
This course covers methods of local and distant digital communications including: systems, standards, and hardware used for transmitting digital data either synchronously or asynchronously.

APPROVED:

[Signature]

Department Chair OR Program Director  Date  1/24/08

Dean OR Associate Dean  Date  3/13/08

Associate VP, Academic Affairs  Date  3/7/08

*If crosslisted, attach completed Course Crosslisting Agreement Form
Required Reading and Other Materials will be equivalent to:


**Specific, Measurable Student Behavioral Learning Objectives:**
Upon completion of this course the student should be able to:

1. Understand the OSI standards, data format structure, routing process and IP system design.
2. Understand voice, data and video equipment and its function in data networks
3. Design a voice, data and video network for a small business.

**Detailed Outline of Course Content (Major Topics and Subtopics) or Outline of Field Experience/Internship (experience, responsibilities and supervision):**

I. Introduction:
   A. Digital Codes
   B. Communication Systems
   C. Electrical Specifications

II. Asynchronous Transmission:
   A. Methods
   B. Standards
   C. Modems
   D. Interfacing Techniques

III. Synchronous Transmission:
   A. Methods
   B. Standards
   C. Modems
   D. Interfacing Techniques

IV. Local, Metropolitan, and Wide Area Networks:
   A. Methods
   B. Standards

V. Digital Transmission:
   A. Terrestrial Systems
   B. Satellite Systems
   C. Telephone Network and ISDN
   D. Multiplexing
   E. Modulation

VI. Error Detection and Correction

VII. Data Compression and Encryption

VIII. Communication Systems Design:
   A. Capacity Analysis
   B. Future Growth Planning

**Evaluation of Student Performance:**
1. Written exams
2. Homework
3. Lab reports
4. Presentations