ECE-S421 COMMUNICATIONS I – SYLLABUS
FALL 2004-2005

Instructor: Dr. Stanislav Kesler, (3-152), X 2676, email: keslersb@coe.drexel.edu
Office Hours – Mon 4:00 – 5:30,
              Wed 11:30 – 1:00.


TOPICS:

1. REVIEW:
   (a) Random Signals, Propagation through Linear Systems, Spectral Densities.
   (b) Continuous – Time (CT) Modulation (AM/FM/PM).
       Frequency – Division Multiplexing (FDM).

2. NOISE IN CONTINUOUS – WAVE (CW) MODULATION:
   Linear Modulation Receivers; Signal–to-Noise Ratios (SNR); Nonlinear Modulation Receivers; Noise in FM Reception; FM Threshold Effect; Pre-Emphasis and De-Emphasis.

3. PULSE MODULATION:
   Pulse Amplitude Modulation (PAM); Pulse-Time Modulations (PPM and PDM); Time-Division Multiplexing (TDM); Pulse Code Modulation (PCM); Delta Modulation (DM); Differential PCM (DPCM); Adaptive Modulations.

4. BASEBAND PULSE TRANSMISSION:
   Matched Filter (MF)/Correlator (CRR) Receivers; Intersymbol Interference (ISI); Pulse Shaping; Correlative Coding.

EXAMS:
Midterm #1: Monday, October 20, 2003
Midterm #2: Monday, November 17, 2003
FINAL: During Finals week

GRADING POLICY: Midterm #1: ( 25%)
                 Midterm #2: ( 25%)
                 FINAL: ( 50%)
                 Max Grade: (100%)

NOTE: There will be no make-up exams. Exams missed without prior notification will count as zero.