العدد :
التاريخ : / / ٢٠

Course number and name	**EE 4400: Digital Communication Systems**
Credits and contact hours	3 credits and 3 hours
Course coordinator	
Textbook	Bernard Sklar, Digital Communications, Fundamentals and Applications, Prentice Hall PTR, Second Edition Or John G. Proakis and Masoud Salehi, "Digital Communications, McGraw Hill, Fifth Edition, 2008 Matlab & Simulink, Mathworks, 2010
Course Information	a. Prerequisites: EE 3400 Communication Systems b. Selected Elective
Topics to be covered	–Analog vs digital communication systems,Signals and Spectra, Digital Communication Signal Processing, Classification of Signals, Spectral Density, Autocorrelation, Random Signals, Signal Transmission through Linear Systems, bandwidth of Digital Data, Formatting and Baseband Modulation (ASK, FSK, PSK, DPSK, QPSK, QAM, OFDM, and MSK), Baseband Systems, Formatting Textual Data (Character Coding), Messages, Characters, and Symbols, Formatting Analog Information, Sources of Corruption, Pulse Code Modulation, Uniform and Nonuniform Quantization –Baseband Modulation and Demodulation/Detection, Why Modulate, Digital Bandpass Modulation Techniques, Detection of Signals in Gaussian Noise, Coherent Detection, Noncoherent Detection, Complex Envelope, Error Performance for Binary Systems, M-ary Signaling and Performance, Symbol Error Performance for M-ary Systems (M>>,(2 Intersymbol Interference, Equalization