Global Learning Semesters
Course Syllabus
Course: EENG-460 Digital Communication Systems
Department: Engineering
Host Institution: Intercollege, Nicosia, Cyprus

Course Summary		
Course Code	**Course Title**	**Recommended Credit Hours**
EENG-460	Digital Communication Systems	3
Semester Offered	**Contact Hours**	**Prerequisites**
Fall	42	EENG-260 Electronic Communications, EENG-360 Random Processes. A background knowledge and understanding of signal analysis and processing at audio and radio frequencies and concepts on probability theory and random variables.
Department	**Level of Course**	**Language of Instruction**
Engineering	Upper Division	English

Course Description

Covers a wide range of topics including pulse-analog modulation, sampling theorem, Time Division Multiplexing (TDM), Pulse Amplitude Modulation (PAM), Pulse Code Modulation (PCM) and noise in PCM systems, Delta Modulation, geometric interpretation of signals, correlation receiver, matched filter receiver, binary signaling techniques, coherent binary phase shift keying (PSK), and coherent binary frequency-shift keying (FSK).

Instructor

Dr. Andreas Siamarou

Course Aims and Objectives

This course provides an in depth study of the principles of Digital Communications. It focuses on the design of optimum receivers.

Teaching Methods

The course is delivered through a mixture of lectures and practical exercises and assignments.

Course Teaching Hours

The course is 42 hours long and is delivered in 14 weeks (3 hours/week).

Evaluation and Grading

Homework:	10%
Test 1:	25%
Test 2:	25%
Final Exam:	40%

Readings and Resources

Required Textbook
M. Roden, Analog and Digital Communication Systems, Fourth Edition, Prentice Hall, 1996

Recommended Readings
- S. Haykin, Communication Systems, John Wiley & Sons, 1994
- L. Couch, Digital and Analog Communication Systems, 1997