

Global Learning Semesters

Course Syllabus

Course: EENG-440 Information Theory & Coding

Department: Engineering

Host Institution: Intercollege, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
EENG-440	Information Theory & Coding	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	EENG-360 Random Processes. Concepts on probability theory and random variables.
Department	Level of Course	Language of Instruction
Engineering	Upper Division	English

Course Description

Presentation, Transmission and transformation of information. Encoding of information for efficient storage as well as reliable recovery. Topics covered include error-detecting codes, error-correcting codes, Huffman codes, miscellaneous codes, entropy and Shannon's first theorem, the channel and mutual information, channel capacity, Shannon's main theorem, and algebraic coding theory.

Instructor

Dr. George Gregoriou

Course Aims and Objectives

To teach the students techniques for presentation, transmission, transformation, and encoding of information.

Teaching Methods

The course is delivered through lectures.

Course Teaching Hours

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

Evaluation and Grading

Homework: 20%
Mid-Term Exam: 30%
Final Exam: 50%

Readings and Resources

Required Textbook

Blahut, Principles and Practice of Information Theory, Addison Wesley