

Global Learning Semesters

Course Syllabus

Course: EENG-370 Digital Signal Processing

Department: Engineering

Host Institution: Intercollege, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
EENG-370	Digital Signal Processing	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	EENG-270 Signals and Systems. Analysis of signals and systems with applications.
Department	Level of Course	Language of Instruction
Engineering	Upper Division	English

Course Description

The course is primarily concerned with digital systems and their applications in filtering and signal processing. Topics covered include discrete-time signals and systems, the z-transform and its applications, frequency analysis of signals and systems, the discrete Fourier transform, the fast Fourier transform, realization of discrete-time systems, and design of digital filters.

Instructor

Dr. George Gregoriou

Course Aims and Objectives

To introduce the students to concepts on digital signals and systems and their application in filtering and signal processing.

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/Computer Projects:	20%
Mid-Term Exam:	30%
Final Exam:	50%

Readings and Resources

Required Textbook

J. Proakis and D. Manolakis, Digital Signal Processing: Principles, Algorithms and Applications, Third Edition, Prentice Hall, 1996

Recommended Readings

- Oppenheim and Shafer, Digital Signal Processing, Prentice Hall, 1975
- Oppenheim and Shafer, Discrete-Time Signal Processing, Second Edition, Prentice Hall, 1999