

Global Learning Semesters

Course Syllabus

Course: CENG-380 Microprocessor Interfacing

Department: Engineering

Host Institution: Intercollege, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
CENG-380	Microprocessor Interfacing	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	CENG-280 Microprocessors, CENG-281 Microprocessors Lab. Basic knowledge of microprocessors and assembly language; experiments on microprocessor system.
Department	Level of Course	Language of Instruction
Engineering	Upper Division	English

Course Description

Topics covered in this course include: interfacing to a microprocessor bus; bus drive requirements; Read/write cycles; memory devices; address decoding; dynamic RAM controllers; memory expansion; I/O devices; a general I/O interface; I/O port address decoding; basic interrupt processing; Programmed I/O with interrupt; an interrupt-driven system; choosing a data exchange method; Data Transceivers; address latch; parallel I/O chips; basic concepts in serial I/O; the RS232C serial interface; Parallel interface.

Instructor

Dr. Charalambos Christou

Course Aims and Objectives

This course is intended to introduce the student to microprocessor interfacing. It introduces interfacing techniques related to realistic electronic applications.

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

Participation/Quizzes/Homework/Project: 20%

Test(s):	30%
Final Exam:	50%

Readings and Resources

Required Textbook

Barry B. Brey, The Intel Microprocessors, Architecture, Programming, and Interfacing, Sixth Edition, Prentice-Hall Inc., 2003

Recommended Readings

- D. A. Patterson, J. L. Hennessy, Computer Organisation & Design: The Hardware/Software Interface,

Second Edition, Morgan Kaufmann Publishers, 1998

- D. A. Patterson, J. L. Hennessy, Computer Architecture; a Quantitative Approach, Second Edition,

Morgan Kaufmann Publishers Inc. 1996