

Global Learning Semesters

Course Syllabus

Course: COMP-430 Digital Image Processing

Department: Computer Science

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
COMP-430	Digital Image Processing	3
Semester Offered	Contact Hours	Prerequisites
As needed	42	COMP-301 Data Structures, MATH-191 Calculus & Analytical Geometry II, MATH-280 Linear Algebra
Department	Level of Course	Language of Instruction
Computer Science	Upper Division	English

Course Description

The course covers, among other, the following topics: motivation, digital image fundamentals, image enhancement in the spatial domain, image enhancement in the frequency domain, image restoration, color image processing, image compression.

Instructor

Dr. George Gregoriou

Course Aims and Objectives

To provide an introduction to basic concepts and methodologies for image processing including image modeling, image acquisition, spatial operators, image transforms, image enhancement, image restoration, color images, and image compression.

Teaching Methods

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

Course Teaching Hours

42 hours lectures/presentations. The course may be scheduled for either the fall or the Spring semester in 14 weeks (3 hours/week).

Evaluation and Grading

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

Readings and Resources

Required Textbook

R. Gonzalez, R. Woods, and Digital Image Processing, Prentice Hall, 2002 (ISBN: 0-13-094650-8)

Recommended Reading

A. Jain, Fundamentals of Digital Image Processing, Prentice Hall, 1989 (ISBN: 0-13-332578-4)

A. Low, Introductory Computer Vision and Image Processing, McGraw Hill, 1991 (ISBN: 0-07-707403-3)