

Global Learning Semesters

Course Syllabus

Course: MATH-475 Numerical Analysis II

Department: Computer Science

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
MATH-475	Numerical Analysis II	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	MATH-375: Numerical Analysis I MATH-430: Partial Differential Equations MATH-280: Linear Algebra
Department	Level of Course	Language of Instruction
Computer Science	Upper Division	English

Course Description

The following topics are covered: numerical linear algebra, iterative methods for the solution of linear systems, computation of eigen-values and eigen-vectors, polynomial interpolation, numerical integration, spline functions, numerical solution of differential equations.

Instructor

Dr Nectarios Papanicolaou

Course Aims and Objectives

A continuation of Numerical Analysis I examines problems in numerical linear algebra and introduces the topic of numerical differential equations.

Teaching Methods

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

Course Teaching Hours

42 hours (42 hours lectures/presentations/tutorials). The course is delivered during the Spring semester in 14-weeks (3 hours/week).

Evaluation and Grading

Class Participation/Homework/Quizzes: 0-30%
Mid-Term(s): 30-50%
Final Exam: 40-50%

Readings and Resources

Required Textbook

Kincaid and Cheney, Numerical Analysis: Mathematics of Scientific Computing, Third Edition, Brooks/Cole, 2001. (ISBN: 0-534-38905-8)