

Global Learning Semesters

Course Syllabus

Course: MATH-430 Partial Differential Equations

Department: Computer Science

Host Institution: University of Nicosia, Nicosia, Cyprus



Course Summary		
Course Code	Course Title	Recommended Credit Hours
MATH-430	Partial Differential Equations	3
Semester Offered	Contact Hours	Prerequisites
Spring	42	MATH-330: Differential Equations
Department	Level of Course	Language of Instruction
Computer Science	Upper Division	English

Course Description

The following topics are covered: first order equations, higher order equations, elliptic, Laplace equation, wave and diffusion equations, methods of separation of variables, Fourier transforms, boundary value problems.

Instructor

Dr Nectarios Papanicolaou

Course Aims and Objectives

Many important problems in the mathematical and engineering sciences, when formulated quantitatively in mathematical terms, lead to partial differential equations. In this course the necessary theory of partial differential equations is developed and a variety of appropriate methods for their solution is developed.

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

Mc Owen, Partial Differential Equations and Applications, First Edition, Prentice Hall, 1998. (ISBN: 0-13-121880-8)