Introduction to Partial Differential Equations 42045

First class: This class will meet for the first time for a regular lecture on Wednesday, January 14th.
Textbook: Applied Partial Differential Equations: an Introduction, A. Jeffrey, Academic Press 2003.
Time and Place: MWF, 1:10–2:00 pm, 276 MSB
Lecturer: Michał Kowalczyk, MSB 207, phone: 29030
Email: kowalcyk@mcs.kent.edu, website: www.mcs.kent.edu/~kowalcyk
Office hours: MWF 9:00–10:00 am.
Grading: The course grade will be based on three take home exams and homework (7–8 assignments). Each exams counts as %25 of the total grade and all the homework assignments count for the remaining %25.
Incomplete: You may receive an I only if you have successfully completed nearly all of the course and some severe, unexpected events prevent you from finishing the course.
The main topics of the course. The course will cover a selection of topics from chapters 1–7 from the textbook. These include:

(1) Examples of problems leading to PDEs, first order PDEs, classification of equations.

(2) Linear wave propagation phenomena in one, two and three dimensions.

(3) Fourier series and the method of separation of variables for elliptic and parabolic problems and some general results for those problems.

Each of those items should take more or less 1/3 of the semester and each will be followed by the exam.
Attendance: Students are strongly recommended to attend the lectures since most but not all of the material will be based on the textbook.