

1-2014

M 418.01: Partial Differential Equations (PDE) Computer Lab

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The University of
Montana

Department of Mathematical Sciences
Spring 2014, Math 418
Partial Differential Equations Lab

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Office Hours: TBA
Class Web Page: <http://www.math.umt.edu/stone/M418>

Course Description: This lab is a companion to Math 412, and if you are in it you are either concurrently enrolled in 412, or took it recently. The labs will mainly illustrate topics covered in the text, and assume only a basic knowledge of computer systems (namely Windows, the OS that runs in the lab). The software package we will use is Matlab, and we will cover some of the basics of Matlab use during the first two weeks. All material for the course can be downloaded from the website listed above, including a primer on Matlab. The general goals of the lab are to be able to use Matlab for the visualization of solutions to PDEs, and to be introduced to numerical methods for solving PDEs.

Text: • *Applied Partial Differential Equations*
John M. Davis, 1st Ed., W.H. Freeman & Co., N.Y.

Prerequisite: Concurrent enrollment in 412

Important Dates:

Feb. 4:	Last day to add courses via Cyberbear
Feb. 14:	Last day to drop courses or change grade options via Cyberbear
Feb. 17:	President's Day Holiday - no classes
March 31 - April 4:	Spring Break - no classes
April 7:	Last day to drop courses without dean's signature
May 9:	Last Day for add/change or drop Petitions

Lab Assignments: During the lab session you will complete Matlab investigations outlined in worksheets available on the website.

Grading: In this course I am adopting a simple grading policy, which is based on completion of the labs in class. The policy is: 0 absences A; 1 absence A-; 2 absences B; 3 absences C; 4 absences D; 5 or more absences F.