

**Math 3111/3131: Partial Differential Equations I/Methods of
Mathematical Physics I**
Course Outline (Fall 2011)

Prerequisites: Mathematics 2111 (Ordinary Differential Equations), Mathematics 2131 (Vector Calculus)

Time and Place: Tues., Thurs., 11:30am-1:00pm, RB 3049

Instructor: Fridolin Ting

Email and Telephone: fting@lakeheadu.ca, 343-8688

Office: RB2018

Office hours: Tuesdays 1:30PM - 2:30PM, Thursdays 10:30AM - 11:30AM
(or by appointment).

Course Web-site: http://flash.lakeheadu.ca/~fting/math3111&3131_2011.html

Please visit the course website at least once a week for important announcements, assignments, and midterm information.

Required Textbook: Richard Haberman, "Applied Partial Differential Equations", 4th Edition.

Grading Scheme	Assignments (10)	30%
	Midterm Exam	30%
	Final Exam	40%

Assignments: There will be weekly assignments. They will be handed out during Thursday's lecture and will be due the next Thursday at the beginning of the lecture (11:30am).

Midterm Exam: Thursday, October 27 during the 1.5 hour lecture.

Final Exam: Date: TBA by Registrar.

Course Description: This course is an introduction to partial differential equations. We will cover boundary value problems and the method of separation of variables to solve the heat, wave and Laplace equations in one, two and three dimensions; Fourier Series and orthogonality, Sturm-Liouville theory, Bessel and Legendre functions. We will cover Chapters 1 to 5, and 7 of Habermann.