



MA473 Numerical Analysis

Fall 2005 MWRF 2:00 - 2:50 WS 3806

Instructor	Dr. Roxin Zhang
Textbook	Applied Numerical Analysis - Gerald & Wheatley, 7e
Office Hours	MWRF 1:00 - 2:00 or by appointments. NSF 3013. rzhang@nmu.edu , Tel: 227-1596
Prerequisite	MA265 and MA211
Software	Mathematical program Maple will be used during the semester.
Contents	<p>In this class, we deal with the theories and the algorithms for obtaining and analyzing numerical solutions to problems in various mathematics branches and applications. When semester progresses, we will often ask students to present their work and lead the discussions. The following is a list of the chapter titles so you can get a rough idea what will be in this class.</p> <ul style="list-style-type: none"> - Preliminaries - Solving Nonlinear Equations - Solving Sets of Equations - Interpolation and Curve Fitting - Approximation of Functions - Numerical Differentiation and Integration - Numerical Solution of Ordinary Differential Equations - Optimization
Homework	Exercise problems will be assigned after each lecture. Students are expected to do the homework and participate in the discussions during the following lectures.
Tests and Quizzes	<p>There are three types of tests:</p> <p>Quizzes - quizzes (take-home or in-class) will be given on a regular basis (biweekly).</p> <p>Midterm - Tentatively scheduled in the 7th week.</p> <p>Final exam - A comprehensive exam.</p>
Attendance	Attendance will be checked randomly and will be calculated into the grade. Remember that the poor attendance is one of the primary causes of failing a class.
Grading	<p>Grades are calculated according to the quizzes, midterm, final exam and the attendance. The weights are:</p> <p>Quizzes 50 %, Midterm 20 %, Final exam 25 %, Attendance 5 %</p>
<p>If you have a need for disability-related accommodations or services, please inform the Coordinator of Disability Services in the Disability Services Office at 2001 C. B. Hedgcock (227-1700; TDD 227-1543). Reasonable and effective accommodations and services will be provided to students if requests are made in a timely manner, with appropriate documentation, in accordance</p>	