MTH 451 Section 3
Fall 2025, A336 WH

LECTURER: Dr. Milan Miklavčič
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Office Hours: MWF 10:30 am - 11:30 am in C231 Wells Hall and online by appointment.

THE COURSE OBJECTIVE is to derive, analyze and implement numerical methods for solving linear and nonlinear systems of equations, interpolation, splines, differentiation, integration, and ordinary differential equations.

TEXTBOOK: Cheney and Kincaid, *Numerical Mathematics and Computing*, 7th edition. We will cover most of the material in Chapters 1-8, 11.

MATHEMATICA: MSU has a site license for Mathematica, so students can download a copy on their personal computer for free. Go to techstore.msu.edu and follow the instructions for students. Mathematica will be needed for homework and the take home parts of the exams.

HOMEWORK/QUIZZES: Homework will be assigned in class and posted on Classes, or, math.msu.edu → Academics → Classes. For some of the assignments you will have to write a Mathematica code. Almost each Friday homework will be collected and a quiz will be given. Most of the grading will be done by our PhD student Aymane Amine (amineaym@msu.edu).

EXAMS: There will be two midterm exams and a final exam. Each of the exams will have a take-home computer project part. The midterms will be given on October 10 and November 14. The final exam will be given on Tuesday, December 9, at 12:45 pm.

GRADES will be determined by your homework (15%), quizzes (15%), midterm exams (40%), the final exam (30%) and the extra credit problems ($\leq 10\%$) as follows

4.0 Grade	0.0	1.0	1.5	2.0	2.5	3.0	3.5	4.0
% Grade	55 -	[55,60)	[60,65)	[65,73)	[73,80)	[80,85)	[85,90)	90 +