

Math 128A: Numerical Analysis — General Information

This course introduces students to numerical methods for solving mathematical problems. Numerical analysis deals with computational problems involving continuous functions of real and complex variables. The intended syllabus includes:

- Computer arithmetics
- Interpolation and approximation
- Numerical differentiation and integration
- Numerical solution of nonlinear equations, systems of linear equations and ordinary differential equations

Using programming assignments, students will acquire experience with solving numerical analysis problems on a computer. There will be an in-class midterm and a final exam.

Lectures: Tuesday and Thursday, 12:30-2:00 PM, Room 105 Stanley Hall.

Discussion Section: Monday, 3:00-4:00.

Instructor: Sergey Fomel

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Office hours: Tuesday and Thursday, 3:00-4:30, or by appointment

Office: Room 857 Evans Hall.

Teaching Assistant: Michael Burns

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Office hours: Monday 2:00-3:00 and Wednesday 4:00-6:00

Office: Room 1087 Evans Hall.

Prerequisites: Familiarity with Calculus, Linear Algebra, and Differential Equations. Programming in the language of your choice.

Class web page: <http://math.lbl.gov/~fomel/128A/>

Textbook: Burden and Faires, Numerical Analysis, 7th edition, Brooks/Cole, 2001.

Exams:

Midterm: Tuesday, March 12, in class.

Final: Tuesday, May 21, 1:00-4:00.

Grading: 40% homework assignments; 20% midterm; 40% final exam

Homework assignments policy: Weekly assignments are due in class. Late homework is not permitted. Your two lowest homework grades will be dropped to allow for missed assignments.