

## MAT 487: NUMERICAL ANALYSIS

Fall 2023

---

**Instructor:** Peter Stechlinski  
**Email:** [peter.stechlinski@maine.edu](mailto:peter.stechlinski@maine.edu)

**Time:** MoWeFr 12:00 – 12:50 PM  
**Place:** Neville 206

---

**Course Description:** An introduction to computational methods for solving problems numerically. We will consider problems in the following areas:

- Interpolation
- Systems of linear or nonlinear equations
- Numerical integration
- Eigenvalues
- Optimization
- Differential equations

We will investigate fundamental tools of numerical computing (e.g., numerical differentiation and integration), and basic concepts such as numerical method convergence, complexity, etc. We will use the MATLAB software platform for the course, but previous experience in computer programming is not expected.

**Text:** *Numerical Analysis* by Timothy Sauer (third edition, Pearson Addison Wesley, 2018).

**Prerequisites:** A grade of C or better in MAT 127 or permission.

Please get in touch if you have any questions.

