

Math 220 – Differential Equations

Student Learning Outcomes

1. Apply Differential Equations to problems in the sciences.
2. Solve various linear and nonlinear ODE's analytically or numerically.
3. Determine the qualitative behavior of an autonomous nonlinear system by means of an analysis of behavior near critical points.
4. Use Laplace transforms to solve second order linear ODE's with discontinuous forcing functions or impulse functions.
5. Compute Fourier coefficients, and find periodic solutions of linear ODE's and PDE's by means of Fourier series and separation of variables.