Book: Differential Equations for Engineers (Lebl)

A one semester first course on differential equations, aimed at engineering students. Prerequisite for the course is the basic calculus sequence.

- Front Matter

0: Introduction
1: First order ODEs

2: Higher order linear ODEs

3: Systems of ODEs

4: Fourier series and PDEs
$T(v) = \lambda v$

5: Eigenvalue problems

$F(s) = \int_{0}^{\infty} f(t)e^{-st} \, dt$

- 6: The Laplace Transform

- 7: Power series methods

- 8: Nonlinear Systems
\[ F(s) = \int_{0}^{\infty} f(t)e^{-st} \, dt \]