

ENGR /MATH 221

Topics for fall 2010 quiz

- 1.3 Differential Equations as Mathematical Models
- 2.2 Separable Variables
- 2.3 Linear First Order Equations - Integrating Factor Method
- 2.4 Exact Equations
- 3.1 Linear Models
- 3.2 Nonlinear Model - Logistic Equation, chemical reactions
- 4.1.2 Homogeneous Equation
- 4.3 Homogeneous Linear Equations With Constant Coefficients - Method of Undetermined Coefficients
- 4.4 Undetermined Coefficients – superposition approach
- 5.1 Linear Models: Initial-Value Problems
- note: p.188 Alternative Form of $x(t)$ for Underdamped Motion (see formula sheet)