

ME3050 - 001 - Spring 2020 - Exam 1 Review

- General Information

- Date: Thursday 02/20/2020
- Time: 9:50 AM - 10:50 PM
- You can come early but the exam will start at 9:50 AM
- Location: BRWN 320

- Materials Allowed in Exam

- Calculator
- One 8.5inx11in Two-Sided Equation Sheet
- Reference Sheet(s) from Instructor

- Important Notes

- Scratch paper will be provided by the instructor.
- No phones, tablets, or computers are allowed, Duh.

- Major Topics

- Modeling 1DOF Mass Spring Damper Systems
- Newtons Method for Deriving an EOM
- Conservation of Energy for Deriving an EOM
- The Trial Solution Method for Solving Linear Ordinary Differential Equations with Constant Coefficients

- **Probable Problem Breakdown**

1. **Short Answer (10%)**

- Concept Problems
- Important Vocabulary

2. **Technical Problem A (25%)**

- System Modeling
- Mass Spring Damper
- Translation

3. **Technical Problem B (30%)**

- System Modeling
- Mass Spring
- Natural Frequency
- Rotation

4. **Technical Problem C (35%)**

- Solve EOM for Response Equation
- Trial Solution Method