

# **MECH 7610: Advanced Dynamics**

**SPRING 2020**

## **Homework Assignment #2**

1. Ginsberg, 2.1
2. Ginsberg, 2.18
3. Ginsberg, 2.30
4. Ginsberg, 2.34
5. Ginsberg, 2.51
  
6. Given: a simple pendulum of length,  $L$ , and mass,  $m$ .
  - a. Determine the number of degrees of freedom of this system.
  - b. Write expressions for the kinetic and potential energy of this system.
  - c. Draw the free body diagram for this system.
  - d. Write the equation(s) of motion.

**This assignment is due Tuesday, January 21, 2020**

No standard format for the problem solutions is required. However, you should present your assignments in a neat, organized manner with your answers clearly marked.

**No credit will be given for late homework.**