

# **AOE 3034**

## **Second Exam Review Guide**

### **Thermal Systems**

- Thermal capacitance
- Conductive and convective resistance
- Newton cooling

### **Time Domain Analysis**

- Step response of first-order systems
- Critical damping, damping ratio and (undamped) natural frequency
- Second-order systems response to initial data and to step input

### **Frequency Domain Analysis**

- Transfer functions
- Steady-state harmonic response

### **Vibrations**

- Transmittance and vibration isolation
- Vibration absorbers
- Multiple degree-of-freedom undamped systems