## Physics 2211: Matter and Interactions Chapter 4 Standards

- 1. I can use the ball and spring model for solids to determine the diameter of an atom in a solid.
- 2. I can use the ball and spring model for solids to determine the interatomic spring stiffness for a solid.
- 3. I can apply Young's Modulus in both macroscopic and microscopic forms to solve problems.
- 4. I can calculate the sliding or static friction exerted on an object.
- 5. I know the difference between period, frequency, and angular frequency.
- 6. I can relate the period/angular frequency of oscillation for horizontal/vertical springs to the spring constant and mass.
- 7. I can graphically represent the motion of an oscillator given properties of its behavior.
- 8. I can algebraically represent the motion of an oscillator given properties of its behavior.
- 9. I can use the ball and spring model for solids to determine the speed of sound in a solid.