PHY 100 - Assignment #16

Pre-Lecture Reading
Please prepare the following before lecture. Check-off the boxes as you go …
- Read Chapter 15 → Section: Simple Vibrations
- Read Chapter 15 → Section: Waves: Vibrations that Move
- Read Chapter 15 → Section: One-Dimensional Waves
- Read Chapter 15 → Section: Superposition
- Read Chapter 15 → Section: Periodic Waves
- Read Chapter 15 → Section: Standing Waves
- Read Chapter 15 → Section: Interference
- Read Chapter 15 → Section: Diffraction

Test your understanding with these reading questions:
- What is a vibration or oscillation?
- What is the equilibrium position of an oscillating object?
- What is the period of an oscillation? How about amplitude? Or frequency?
- As a wave travels, what is moving in the medium?
- What is the difference between a transverse wave and a longitudinal wave?
- What is wavelength of a periodic wave? How would you measure it?
- What is the period of a periodic wave? How would you measure it?
- What is the frequency of a periodic wave? How would you measure it?
- What is the velocity of a periodic wave in terms of wavelength and period?
- What is the velocity of a periodic wave in terms of wavelength and frequency?
- What is a standing wave?
- Are standing wave produced from traveling waves?
- What is the node and antinode of a traveling wave?
- What are the harmonic frequencies of the fundamental frequencies?
- What is interference?
- What happens when waves are ‘in phase’ or ‘out of phase’?
- What is diffraction?

*** Don’t forget to work on the assigned problem set. ***