

3306 physics lectures, Spring 2026

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https://www.physics.smu.edu/saptarnab/PH3306_Spring_2026/

Based on Simon Dalley's lectures delivered in spring 2025



WARM UP 3: Properties of Transverse Waves

Write your answers in the space following the warm-up question if you can. Write as if you are explaining to a fellow student. If you need more space, you are probably over-thinking things.

Define in words each of the following terms for transverse waves: medium; amplitude; frequency; phase constant; wavelength; wave speed; average power.

The motion of each part of the medium in a sinusoidal transverse wave is simple harmonic. Why is the elastic potential energy not zero at zero transverse displacement?

What properties of the medium does a transverse wave speed depend upon? Explain.