

SIO 202B – Wave Physics

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Week 1: Introduction to Seismic Waves, Simple Harmonic Motion

Week 2: Elastic Waves, Strain, Stress, Dynamical Equations

Week 3: Elastic Constants, Stiffness, Attenuation

Week 4: Reflection and Transmission, Slowness Surfaces

Week 5: Surface Waves, Rayleigh and Love Waves, Instrumentation

Week 6: Introduction to Optics, Maxwell's Equations

Week 7: Wave Equation, Velocity of Light

Week 8: Interaction of Light with Matter, Blackbody Radiation

Week 9: Reflection, Transmission and Scattering

Week 10: Diffraction, Fresnel, Fraunhofer, Image Forming Instruments