

## EART 270 Introduction to Global Seismology

Fall, 2015 MWF 1:30-2:40 C332 E&MS

Day	Date	Topic
F	Sept. 25	Introduction to Seismology
M	Sept. 28	Continuum: Strain and Stress, Eq. of Equilibrium/Motion
W	Sept. 30	Constitutive Equations, Eq. of Motion for Isotropic Medium
F	Oct. 2	1D Wave Equation, Nature of Solutions
M	Oct. 5	Inhomogeneous medium, Plane waves
W	Oct. 7	Eikonal, Seismic rays
F	Oct. 9	Travel time – distance for 1D velocity structure
M	Oct. 12	Reflection/transmission coefficients
W	Oct. 14	Reflection/Transmission coefficients
F	Oct. 16	Amplitudes: Geometric spreading and attenuation
M	Oct. 19	Free surface effects: Surface Waves
W	Oct. 21	Surface Wave Dispersion
F	Oct. 23	<b>No Class</b> – T. Lay to Cleveland
M	Oct. 26	Normal Modes
W	Oct. 28	Seismic Wave Nomenclature
F	Oct. 30	Inversion for Earth Structure
M	Nov. 2	<b>No Class</b> – T. Lay to GSA (Baltimore)
W	Nov. 4	Elastostatics
F	Nov. 6	Elastostatics
M	Nov.9	Elastodynamics – whole space solution
W	Nov. 11	<b>No class</b> – Veteran's Day
F	Nov. 13	<b>No class</b> – T. Lay to NYC
M	Nov. 16	Elastodynamics – whole space solution
W	Nov. 18	Elastodynamics – whole space solution
F	Nov. 21	Finite Source Representation –Haskell Model
M	Nov. 23	Source Spectra and Magnitudes
W	Nov. 25	Scaling Laws and Rupture Properties
F	Nov. 27	<b>No class</b> – Thanksgiving
M	Nov. 30	Putting it All Together: Linear operators, Synthetic Seismograms
W	Dec. 2	Putting it All Together: Linear operators, Synthetic Seismograms
F	Dec. 4	Solution of the Problem