

Observation Log

Teacher:	Felix Kaess	Observer:	Jonathan Miller
Class:	MSE704: Interaction of Photons with Solids	Date:	Feb. 18 th , 2016

Time	Observations	Comments
8:30	Went over a correction from Lecture 2 (for upcoming test) Lectures very organized online. Very in depth derivations!	Nice organization for the class online.
8:40	Olive oil example (absorption coefficient) See light in the oil (scattering)	Great example. Very neat!
8:45	Review of last class Explains that today is more fun --- Test is next week	Review is always good.
8:50	Review of longitudinal and transverse waves. Big picture Water waves – both types! Rayleigh surface waves were neat	Great web page example.
8:55	Notes: retarder plates, polarizer, phase difference between o and e ray	
9:05	More notes. Half-wave plate Circular polarizer = linear polarizer + quarter polarizer Internet examples	Talked about making money with theory. Nice!
9:10	Experiment with circular polarizer/calcite crystal Linear polarized filter	
9:25	Explained why cameras need circular polarization instead of linear polarization Experiment with circular polarizers	Nice real world example
9:30	Induced optical anisotropy Test “strain” on plastics looking thru 2 linear polarizers! Neat polarizer slides were passed around class	Nice slides
9:35	Kerr effect and Kerr constant (small) Magnetic fields: chirality Showed crystalline vs. fused silica and the difference.	
9:45	Summary of everything and wrapping up the major concepts. Class went long!	The class stayed. No one complained!