PHY 2049 Topic	Physics with Calculus II Sub-Topics	M=Mandatory, O=Optional, R=Review, V=Overview M,O,R,V
Electricity and Magnetism	Coulomb's Law	M
	Magnetic forces and fields	M
	Electric forces and fields	M
	Electromagnetic induction	M
	Electric potential	M
	Electrostatics	M
	Electric Power	M
	Ampere's Law	M
	Lenz's Law	M
	Faraday's Law	M
	Maxwell's equations	V
	Gauss's Law	M
	Circuits - theory, DC and AC circuits, components	M
Optics	Physical optics - diffraction, interference, and polarization	V
	Electromagnetic waves	M
	Optical instruments	V
	Geometric optics - reflection, refraction, lens and mirrors, shadows, ray diagrams.	V
Oscillations and Wave Motion	Sound	M(48/49)
	Simple harmonic motion	M(48/49)
	Harmonic waves	M(48/49)
	Wave equation	M(48/49)
	Superposition principle	M(48/49)
	Standing waves and resonance	M(48/49)
	Doppler effect	M(48/49)
Thermal	Heat transport	V(48/49)
	Specific heat, latent heat	V(48/49)
	Thermal expansion	V(48/49)
	Heat engines	V(48/49)
	Ideal gas law	V(48/49)
	Kinetic theory of gas	O(48/49)
	3 laws of thermodynamics	V(48/49)