

### Physics Final Exam Matrix

<b>Newtonian Mechanics</b>	<b>36%</b>	<b>Electricity and Magnetism</b>	<b>18%</b>	<b>Waves and Optics</b>	<b>20%</b>
Scalar/Vector	1	Coulombs Law	2	speed of a wave	1
Constant Acceleration	2	Electric Field	1	snell's law	1
velocity-time graph	1	electric field lines	1	transverse/longitudinal waves	1
acceleration of gravity	1	Current	1	constructive/destructive interference	1
acceleration of gravity diagram	1	Ohm's Law	2	amplitude	1
projectile motion	1	Circuits	1	resonance	1
Newton's 1st Law	1	force of magnetism/gravity	1	diffraction	1
Newton's 2nd Law	3	<b>Total</b>	<b>9</b>	doppler effect	1
centripetal force	2			reflection	1
energy	2	<b>Atomic Physics</b>	<b>4%</b>	refraction	1
Momentum	2	Duality of nature	1	<b>Total</b>	<b>10</b>
power	1	Energy levels	1		
<b>Total</b>	<b>18</b>	<b>Total</b>	<b>2</b>	<b>General</b>	<b>2%</b>
				Units	1
				<b>Total</b>	<b>1</b>

<b>Free Response</b>	
Calculating energy, frequency, or wavelength of light = <b>5 points (10%)</b>	
Calculating frictional force, net force, and acceleration using Newton's 2nd Law = <b>5 points (10%)</b>	