

Course Outcome Guide (COG)

Course:	PHYS 212: College Physics 212	Credits:	4	Instructor:	Lance Olson
Course Description:	Pre-requisite: College Physics 211 or placement examination. An algebra based physics course covering the basic principles of Thermodynamics, Electricity, Magnetism, Light, and Optics. Co-requisite: PHYS 212 Lab				
Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institution
<ul style="list-style-type: none"> *Oscillatory motion *Wave Motion *Sound waves *Super position and Standing waves *Electric fields *Gauss's Law *Electric potential *Capacitance and Dielectrics *Current and Resistance *Direct-Current circuits *Magnetic fields *Faraday's law *Inductance *AC currents *DC currents *Ray optics *Image formation *Wave optics 	<ul style="list-style-type: none"> *Express Physics problems in Laymen's terms using drawings, vectors and diagrams when applicable. *Use Polya's problem solving strategies to set up and solve Physics problems. * Use an understanding of mathematics, along with physics principles to effectively solve problems. *Apply knowledge of subject material to explain natural physical processes. 	<ul style="list-style-type: none"> *Participate in class discussions and activities demonstrating knowledge of subject matter. *Complete examinations demonstrating acceptable skill level of concept and process. *Complete textbook readings, questions and problems (both individually and collaboratively) demonstrating acceptable skill levels of concept and process. *Design experiments and acquire data in order to explore physical principles and effectively communicate results. * Design, construct and test your final project. 	<ul style="list-style-type: none"> *Students will apply physics principles to real-world situations and/or future academic pursuits. *Students will work effectively within a collaborative group to achieve a distinct result. *Students will be able to Integrate learning theory with laboratory performance. 	<ul style="list-style-type: none"> Students will use reasoning skills to analyze and solve problems. 	<ul style="list-style-type: none"> Students will use reasoning skills to analyze and solve problems.