Whitehall-Coplay School District Syllabus

Course Title: Core Physics Grade: 11/12

DESCRIPTION OF COURSE: Students will learn Newton's Laws of Motion, momentum, energy, electricity, and magnetism. They will demonstrate their understanding by their participation in laboratory investigations. Achievement will be demonstrated through varied assignments, either individually or in groups, requiring data analysis and application of physics principles.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
Mechanical Equilibrium and Newton's First Law	3 weeks	3.2.9-12.I; SEP 4, CCC 2
Linear Motion	2 weeks	3.2.9-12.I; 3.2.9-12.P; SEP 2,4,5; CCC 1,3
Projectile Motion	2 weeks	3.2.9-12.I; 3.2.9-12.P; SEP 2,4,5; CCC 1,3
Newton's Second and Third Laws	2 weeks	3.2.9-12.I; SEP 4, CCC 2
Momentum	1 week	3.2.9-12.J.;3.2.9-12.K.; SEP 1,2,3,4,5,6; CCC 2,5
Energy	2 weeks	3.2.9-12.O, 3.2.9-12.P., 3.2.9-12.Q.; SEP 2,3, CCC 4,5,8
Circular Motion and Rotation	2 weeks	3.2.9-12.L; SEP 4,5; CCC 3,8
Universal Gravitation	1 week	3.2.9-12.L; SEP 4,5; CCC 3,8
Vibrations and Waves	2 weeks	3.2.9-12.T, 3.2.9-12.V, SEP 3,4,5; CCC 1,2,6.
Electrostatics	2 weeks	3.2.9-12.M; 3.2.9-12.N; 3.2.9-12.S, 3.2.9-12.V, SEP 2,3; CCC 4, 5

RESOURCES: Text: "Conceptual Physics" by Paul G. Hewitt. ©2009; Vernier Laboratory Suite; PhET and other simulations. Google classroom is used extensively for announcements and homework.