STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: College Physics I w/Algebra
Course Number: PHY121

Required Materials

Textbook(s): College Physics, Knight, Jones and Field, 4th edition; Addison Wesley, 2018 (Chapters 1-13)
Required Readings: None
Additional Materials: Mastering Physics (bundled with new text) College Physics I with Algebra PHY121
Laboratory Manual 6.0.5

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

16 Week Calendar

Week	Chapter:Topic/Lab Number: Topic
1	Chapter 1& 2: Kinematics/ 0: Math Review, 1: Significant Figures &Graphing
2	Chapter 3: 2D Kinematics/ 2:Techniques of Measurement
3	Chapter 3 & Exam I/ 3: Free Fall Gravity
4	Chapter 4: Introduction to Newton's Laws of Motion/ 4:Newton's Second Law
5	Chapter 5: Application of Newton's Laws/ 5: Friction
6	Chapter 6: Newton's Laws Applied to Circular Motion/ 6: Net Force in Circular Motion
7	Chapter 6 & Exam II/ Review
8	Chapter 7: Torque and Spinning/ 8: Rotational Equilibrium
9	Chapter 8: Rotational Equilibrium and Material Moduli/ 10: Springs
10	Chapter 9: Momentum & Exam III/ 11: Pendula
11	Chapter 10: Energy/ 7: Work to Kinetic Energy
12	Chapter 10/ 13: Calorimetry and Heat of Fusion
13	Chapter 12: Thermal Properties of Matter/ 12: Thermal Expansion
14	Chapter 13: Fluids/ 9: Buoyant Force
15	Chapter 13/ Review
16	Final Exam

5 week calendar

Week	Chapter: Topic/Lab Number: Topic
1	Chapters 1 – 3: Kinematics/1: algebra, 2: measurments, 3: gravity, 4: F-ma
2	Chapters 4 – 6: Newton's Laws of Motion/5: friction, 6: centripetal force
3	Chapters 7 – 9: Torque, Material Properties, Momentum/ 8: torque, 10: springs
4	Chapters 10 & 12: Energy & Heat/7: Energy conservation, 13: calorimetry, 9: buoyancy
5	Chapter 13: Fluids/ Final Exam