

**WILMINGTON UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
BASIC COURSE INFORMATION**

10. and momentum, and applications of these physical laws to obtain qualitative understanding of a problem.
11. Student will distinguish between states of matter associated with the character of the materials.
12. Apply the knowledge of kinematics and dynamics in laboratory experiments.
13. Learn different theory calculations. the concept of waves, the wave equation, travelling wave, speed and energy of a wave.
14. Understand rotational dynamics, center of mass and its applications, and conservation of angular momentum.
15. Learn Newton laws, heat and work.
16. Learn the motion of COM; the conservation of momentum; the COM reference frame; collision between two particles.
17. Learn energy transfer and the concept of work; conservative force; potential energy and equilibrium; conservation of mechanical energy; the generalized work-energy theorem; conservation of energy; power.

Lab Requirements:

For face to face courses only: Safety goggles and nitrile gloves will be provided by Wilmington University. All persons in the lab are required to wear closed toed, non-perforated shoes and personal protective equipment. Long hair needs to be tied back. Students who are not dressed appropriately will not be allowed to make up the experiment. Before any lab work can be performed, students will sign a contract confirming that they understand and will follow all safety rules, including waste handling and other important protocols. Any student found performing unauthorized experiments, failing to respond to instructions in a timely fashion, or behaving in an unsafe manner in the laboratory may be removed from the laboratory. Removal from the laboratory may be for the remainder of the current lab period or the remainder of the course itself, depending on the circumstances.

METHODOLOGY

A. Teaching and Learning Strategies

Assigned readings, web-based activities, article review, lab assignments and research paper

B.