Course View | Activity View

Tools

Blocks
Activity
Artef.
Assess.
M/W
Recurring Blocks

Physics NYA

Activities
Learning Objectives

Artefacts
(Formative)

Assessments

Content

Intro

Introductory activity: Mechanics Scavenger Hunt
-Students recognize and represent diagrammatically the four basic concepts used for the course: kinematics, forces, energy, and momentum.
-Students are able to identify examples of these in the real world.

Diagrams
Students produce simple motion, force, energy, or momentum diagrams for each item in the scavenger hunt.

Scavenger Hunt
Used as diagnostic for student level/prior knowledge.

1D Motion

Week 1

Motion Diagrams Gallery Walk (Gallery Walk)
-Students take a described or observed motion and create the corresponding motion diagram, representing displacement, velocity, and acceleration as vectors.

Motion Diagrams
Students produce motion diagrams, uploading them to Visual Classrooms.

Week 2

Motion Graphs Distributed Problem Solving (Distributed Problem Solving)
-Students are able to represent motion as a series of graphs, starting both from described motion or from a motion diagram.

Motion Graphs
Students produce motion graphs from another group's diagram, uploading them to Visual Classrooms.

Motion Graphs
Assessed as assignment.

Case Study Part 1: 1D Motion (Case Studies)
-Students are able to use kinematic equations to solve 1D motion problems numerically.

Vertical "Projectile" Analysis
Results of case study are uploaded to Visual Classrooms.

2D Motion

Week 3

Case Study Part 2: Projectile Motion (Case Studies)
-Students are able to apply the principles of projectile motion to predict trajectories.

2D Projectile Analysis
Results of case study are uploaded to Visual Classrooms.

2D Projectile Analysis
Assessed as assignment.