Course at a Glance

Plan

The course at a glance provides a useful visual organization of the AP Physics C: Mechanics curricular components, including:

- Sequence of units, along with approximate weighting and suggested pacing. Please note, pacing options are provided for teaching the course in a single semester or a full year.
- Progression of topics within each unit.
- Spiraling of the big ideas and skills across units

Teach

SCIENCE PRACTICES

Science practices are spiraled throughout the course.

- 1 Visual Representations
- 2 Question and Method
- 3 Representing Data and Phenomena
 - Indicates 3 or more skills/practices suggested for a given topic. The individual topic page will show all the suggested skills.

BIG IDEAS

Big Ideas spiral across topics and units.

- **CHA** Change
- **FLD** Fields
- INT Force Interactions CON Conservation

4 Data Analysis

Theoretical

6 Mathematical

Routines

7 Argumentation

Relationships

Assess

Assign the Personal Progress Checks—either as homework or in class—for each unit. Each Personal Progress Check contains formative multiplechoice and free-response questions. The feedback from the Personal Progress Checks shows students the areas where they need to focus.

UNIT **Kinematics**

~11/~22 Class Periods

14-20% AP Exam Weighting

- CHA +
- 1.1 Kinematics: Motion in One Dimension
- CHA +
- 1.2 Kinematics: Motion in **Two Dimensions**

Newton's Laws of Motion

~12/~24 Class Periods

17-23% AP Exam Weighting

- INT +
- 2.1 Newton's Laws of Motion: First and **Second Law**
- INT
- 2.2 Circular Motion
- +
- INT 2.3 Newton's Laws of Motion: Third Law +

Personal Progress Check 1

Multiple-choice: ~15 questions Free-response: 1 question

Personal Progress Check 2

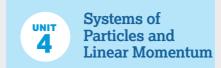
Multiple-choice: ~25 questions Free-response: 1 question



~10/~20 Class Periods

14-17% AP Exam Weighting





~10/~20 Class Periods

14-17% AP Exam Weighting

СНА	4.1 Center of Mass
6	
INT	4.2 Impulse and
+	Momentum
CON	4.3 Conservation of Linear
+	Momentum, Collisions



~10/~20 Class Periods 14-20% AP Exam Weighting

INT 2 3	5.1 Torque and Rotational Statics
5 6	5.2 Rotational Kinematics
INT +	5.3 Rotational Dynamics and Energy
CON +	5.4 Angular Momentum and Its Conservation

Personal Progress Check 3

Multiple-choice: ~20 questions Free-response: 1 question

Personal Progress Check 4

Multiple-choice: ~15 questions Free-response: 1 question

Personal Progress Check 5

Multiple-choice: ~20 questions Free-response: 1 question



Oscillations

~5/~10 Class Periods

6-14% AP Exam Weighting



6.1 Simple Harmonic Motion, Springs, and Pendulums



Gravitation

~5/~10 Class Periods

6-14% AP Exam Weighting

FLD +

7.1 Gravitational Forces

CON

7.2 Orbits of Planets and Satellites

Personal Progress Check 6

Multiple-choice: ~10 questions Free-response: 1 question

Personal Progress Check 7

Multiple-choice: ~10 questions Free-response: 1 question