

Pacing by Week Guide: Unit 5 – Rotational Motion & Gravity

(Estimated 4 weeks of instruction)

The table below provides pacing guidance for Unit 5 by week. Use this pacing guide, the dynamic pacing calendar, and the lesson plans to maintain pacing in the course that promotes students' successful completion. Please reach out to the Physics team through OnRamps Support if you need support or have any questions.

Key: (C) = Lecture College Assignment – Mandatory, calculated in final college grade (L) = Lab College Assignment – Mandatory, calculated in final college grade (PI) = Peer Instruction activity or contains PI components; contributes to college participation grade, completed in Learning Catalytics . (F) = Flex Activity – Time may be used for recommended activity or reprioritized (HS) = High School Activity – Not part of the college grade, may be omitted or modified as needed		
Week 1 Readings: 6.1, 6.2, 6.3		
Lesson Topic	Lesson	Learning Activity
Angular Quantities	5.1.1	<ul style="list-style-type: none"> • Begin Quest HW 7 (C) • 5.1.1.1: Intro to Angular Quantities (HS, 50 min) • 5.1.1.2: Ladybug PhET Lab (HS, 50 min) • 5.1.1.3: Centripetal Acceleration and Problem Solving (HS, 50 min) • 5.1.1.4: Circular Motion Peer Instruction (PI, 50 min) • HW / Flex time (F)
Week 2 Readings: 6.5, 6.6, 9.1, 9.2, 9.3, 9.4, Lab Experiment Handout		
Lesson Topic	Lesson	Learning Activity
Gravity and Applications	5.1.2	<ul style="list-style-type: none"> • 5.1.2.1: Gravity PhET Investigation (HS, 90 min) • 5.1.2.2: Planets and Satellites Peer Instruction (F, PI, 50 min)
Torque	5.2.1	<ul style="list-style-type: none"> • 5.2.1.1: Intro to Torque and Center of Gravity (HS, 50 min) • Pre-Lab 5 (L, PI, 30 min) • Quest HW 7 due (C) • Begin Quest HW 8 (C)
Week 3 Readings: 9.1, 9.2, 9.3, 9.4		
Lesson Topic	Lesson	Learning Activity
	5.2.1	<ul style="list-style-type: none"> • Lab 5: Statics in class Experimental Inquiry (L, 60 – 90 min) • Post-Lab 5 (L, outside of class)

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		<ul style="list-style-type: none"> 5.2.1.2: Center of Gravity and Torque Peer Instruction (PI, 50 min) 5.2.1.3: Statics Peer Instruction (PI, 50 min) 5.2.1.4: Complex Torque Practice (F, 30 min)
Week 4 Readings: 10.1, 10.2, 10.3, 10.4, 10.5		
Lesson Topic	Lesson	Learning Activity
Rotational Motion & Angular Momentum	5.2.2	<ul style="list-style-type: none"> 5.2.2.1: Intro to Moment of Inertia and Rotational Kinetic Energy (HS, 50 min) 5.2.2.2: Rotational Motion Problem Solving (HS, 50 min) 5.2.2.3: Angular Momentum Peer Instruction (PI, 50 min) Quest HW 8 due (C) Review for Exam (F) Exam 5 (C, 45 - 50 min plus upload time)

**The Exam 5 Retest can be offered to students as soon as 1 – 2 weeks after the original exam. Offering the retest is not optional; however, students may opt out if they choose.