

<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Assignment</b>	<b>Lab</b>
8/31	Introduction		(The Moon)	Evening Observation (8pm)
9/2	Discussion, Logic	Bronowski; <i>pp1-9</i>	1.1, 1.2	
9/4	Logic	<i>pp10-19</i>	2.1, 2.2	
9/7	<i>Labor Day</i>			
9/9	Observing the Sky	<i>pp20-26</i>	2.4, 2.5	Evening Observing (10pm)
9/11	Observing the Sky	<i>pp27-29</i>	3.2	
9/14	Observing the Sky	<i>pp30-35</i>	Dipper	Star Charts
9/16	Geocentric Astronomy	<i>pp39-45</i>	3.3, 3.4	
9/18	Geocentric Astronomy	<i>pp45-53</i>	4.1, 4.3	
9/21	Heliocentric Astronomy	<i>pp57-65</i>	4.2, 4.4	No Lab
9/23	Heliocentric Astronomy		Annual Motion	
9/25	Kepler's Laws	<i>pp66-74</i>	The Moon	
9/28	Lunar Phases	Handout	5.1, 5.2	Moon's Orbit
9/30	Review		Moon Phases	
10/2	<b>Exam I</b>			
10/5	Discussion of Reading	Starry Messenger	Bring Questions	Morning Observing (4am)
10/7	Galileo's Telescope	<i>pp75-80</i>		
10/9	Greek Ideas of Motion	<i>pp83-93</i>		
10/12	Motion according to Galileo	<i>pp93-102</i> , Galileo II		Inclined Plane
10/14	Accelerated Motion I	Galileo III	6.1, 6.2	
10/16	Accelerated Motion II		6.3, 6.5	
10/19	Superposition	<i>pp107-112</i>	6.4	No Lab
10/21	Newton's Laws of Motion I	<i>pp112-117</i>	7.1, 7.2	
10/23	Newton's Laws of Motion II	<i>pp117-122</i>	7.3, 7.4	
10/26	Newton's Laws of Motion III	<i>Newton I</i>	7.5, 7.6	Newton's Laws
10/28	Newton's Laws of Motion IV		7.8, 7.9, 7.10	
10/30	Newton's Law of Gravity I	<i>pp127-131</i>	7.11	
11/2	Kepler's Second Law (reprise)	<i>pp131-138</i>	8.1, 8.2	No Lab
11/4	Newton's Law of Gravity II	<i>pp138-144</i>	8.3, 8.4	
11/6	Mass and Weight	<i>pp144-149</i>		
11/9	The Speed of Light	<i>pp153-156</i>	8.5, 8.10, 5.2	Light and Sound
11/11	Ole Roemer and Jupiter	<i>pp156-163</i>	8.6, 8.8, 8.9	
11/13	Newton vs. Einstein	<i>pp165-172</i> , <i>Newton II</i>		
11/16	4am Lab			
11/18	Relative Motion	<i>pp172-174</i>		
11/20	Exam Review		10.1, 10.2	
11/23	<b>Exam II</b>			
11/25	Break			
11/27	Break			
11/30	Special Relativity I	<i>pp174-179</i> , Einstein		Special Relativity II
12/2	Relativity and Experiment	<i>pp179-187</i>	10.3, 10.5, 10.6	
12/4	The Universe		10.7	

### Reading Key

Page numbers (*pp*) = indicate readings from course textbook.

Bronowski = J. Bronowski, "The Creative Mind," from *Science and Human Values*, Harper and Brothers Publishing, New York, 1972. (#1 in Reader)

Starry Messenger = Galileo Galilei, "The Starry Messenger" (1610), from *Discoveries and Opinions of Galileo*, Trans. Stillman Drake, Doubleday, Anchor Books, New York, 1957. (#2 in Reader)

Galileo II = Excerpts from Galileo Galilei, *Dialogue Concerning the Two Chief World Systems—Ptolemaic and Copernican*, (1632) "The Second Day," Trans. Stillman Drake, University of California Press, Berkeley, California, 1953. (#3 in Reader)

Galileo III = Excerpt from Galileo Galilei, *Dialogues Concerning Two New Sciences*, "The Third Day," Trans. Crew and DeSalvio, Dover Publications, New York, 1954. (#4 in Reader)

Newton I = Excerpt from Isaac Newton, *The Principia*, Trans. Bernard Cohen and Anne Williams, University of California Press, Berkeley, 1999, pp403-408 and pp416-417 (#5 in Reader)

Newton II = Excerpt from Isaac Newton, *The Principia*, Trans. Bernard Cohen and Anne Williams, University of California Press, Berkeley, 1999, pp408-415 (#5 in Reader)

Einstein = Excerpt from Albert Einstein, *Relativity: The Special and General Theories*, Crown Publishers, New York, 1961, pp 1-29 (#6 in Reader).