

# Physics 122 Course Outline

Monadi

Winter 2026

Week	Lecture Dates	Material	Lab	HW	Assigned Problems	Extra Problems
1	Jan 5, 7, 9	Efficiency, Energy Conversion, Engines, Heat Pumps	The Simple Pendulum and Computer Data Analysis	1	Ch 11: 13, 31, 44, 45, 52, 56, 64	Ch 11: 14, 33, 39, 41, 47, 51, 55, 58, 63
2	Jan 12, 14, 16	Pressure, Ideal Gases	Temperature & Thermometers	2	Ch 12: 1, 15, 17, 27, 31, 35, 38, 43	Ch 12: 3, 12, 33, 36
3	Jan 19, 21, 23	Specific Heat, Heats of Transformation, Emissivity	Specific Heat & Heat of Transformation	3	Ch 12: 53, 57, 63, 75, 77, 88, 91, 97, 99	Ch 12: 25, 39, 51, 55, 59, 65, 76, 79, 90, 93, 100
4	Jan 26, 28, 30	<b>Wednesday Midterm, Week 1 to Week 3</b> Fluids	Buoyancy & Archimedes' Principle	4	Ch 13: 1, 10, 13, 15, 20, 23, 37, 54, 57	Ch 13: 5, 9, 14, 17, 19, 25, 33, 40
5	Feb 2, 4, 6	Simple Harmonic Motion	Mass on a Spring	5	Ch 14: 3, 9, 19, 22, 26, 27, 30, 47, 53, 62	Ch 14: 2, 8, 13, 20, 21, 25, 29, 31, 48, 63
6	Feb 9, 11, 13	Traveling Waves	Vibrating Strings	6	Ch 15: 1, 3, 30, 33, 55, 57, 60, 71, 81	Ch 15: 2, 58, 61, 75
7	Feb 16, 18, 20	Multiple Waves	Sound Resonance in Air Columns	7	Ch 16: 4, 9, 17, 20, 27, 31, 41, 43, 49, 61, 63	Ch 16: 5, 10, 30, 40, 62, 64

8	Feb 23, 25, 27	<b>Wednesday Midterm (Week 4 to Week 7) Light</b>	Diffraction and Interference of Light	8	Ch 17: 1, 3, 8, 17, 24, 27, 29, 33, 39, 55, 58	Ch 17: 2, 4, 9, 19, 26, 34, 41
9	March 2, 4, 6	Ray Optics	Refraction of Light	9	Ch 18: 1, 4, 11, 12, 20, 27, 31, 33, 41, 45, 48, 62, 68, 77	Ch 18: 3, 13, 21, 29, 30, 35, 39, 47, 49, 63, 76
10	March 9, 11, 13	Optical Instruments	Thin (Simple) Lenses	10	Ch 19: 9, 17, 31, 33, 42, 46, 50, 59, 73	Ch 19: n/a

**Notes:**

- Assigned Problems are required for homework.
- Extra Problems are optional and provided for additional practice.