

**UNIT 1 – WAVES & OPTICS**

## HOMEWORK ASSIGNMENTS

Please note that this list is tentative and can be modified at any time. Unless otherwise indicated, all assignments are in the “Problems” section at the end of the corresponding chapter in Serway and Faughn’s *College Physics, 6<sup>th</sup> Edition*.

**MECHANICAL WAVES & SOUND**

	HW#	Read	Problems	Comments
The nature of waves	1	13.8-13.13	37-42	skip 13.11
The nature of sound	2	14.1-14.3	1-8	Skip 5
Doppler effect, shock waves	3	14.5, 14.6	Q9, Q14, Q17	
Interference, superposition, beats	4	14.7 14.11	30-32, 50, 52	
Standing waves & resonance	5	14.8-14.12	42-48	skip 14.11

**PHYSICAL OPTICS**

	HW#	Read	Problems	Comments
The nature of light	6	TBA	Worksheet	
Interference, diffraction	7	24.1-24.8	1, 8, 35, 41	
Thin Films	8	24.4	14-19	
Polarization	9	24.9	Q11, Q14, Q18	←questions

**GEOMETRIC OPTICS**

	HW#	Read	Problems	Comments
Reflection	10	22.1-22.3 23.1	6,17 2,4	←different ←chapters
Refraction	11	22.3-22.8 23.4, 23.5	7-9, 13-15	←different ←chapters
Total Internal Reflection	12	22.8	34-38, 40, 43	
Spherical mirrors	13	23.2, 23.3, 23.7	7-12	
Thin lenses	14	23.6, 23.7	29-35	skip 33