

Advanced General Physics I  
Syllabus  
Fall 2023

Week	Date	Lecture	Recitation	Pages Morin	Pages Suskind
1	9/4	Principles of Physics	Newton's Laws (Lecture)	51-64	1-14, 29-46
2	9/11	Vectors	Newton's Laws: Quiz 1	65-69, 101-106	15-28, 58-73
3	9/18	Principle of Stationary Action	Vector Forces: Quiz 2	218-226	95-104, 105-115
4	9/25	Lagrangians	Conservation of Energy: Quiz 3	138-151	116-127
5	10/2	Lagrangian in Polar Coordinates	Lagrangians: Quiz 4	229-231	
6	10/9	Non-Inertial Forces	Lagrangians in Polar Coordinates: Quiz 5	457-470	
7	10/16	Symmetries and Conservation Laws	Non-Inertial Forces: Quiz 6	232-238	128-144
8	10/23	Hamiltonian	Symmetries and Conservation Laws: Quiz 7		145-161
9	10/30	Collisions	Phase Space Quiz 8	156-177	
10	11/6	Planetary Motion	Collisions: Quiz 9	281-295	212-227
11	11/13	Rotations	Planetary Motion: Quiz 10	309-332	161-173
12	11/20	Thanksgiving No Class	Gyroscope (Lecture)		
13	11/27	Normal Modes	Rotations: Quiz 11	115-119	
14	12/4	Lorentz Force	Normal Modes: Quiz 12		190-203
15	12/11	Lorentz Force	No Class		204-211