Physics 603 Tentative Schedule Spring 2021

Lecture	Date	Topic	Pages	HW due
1	19-Jan	Review of Mechanics	1-12	
2	21-Jan	Constraints and Lagrange's Equations	12-20	
3	26-Jan	Forces of constraint, v-dependent Potentials	20-31	
4	28-Jan	Hamilton's Principle, Lagrange Multipliers	34-45	HW1
5	2-Feb	Hamiltonians II	45-54	
6	4-Feb	Conservation Theorems	54-68	HW2
7	9-Feb	Central Force Problem: General	70-87	
8	11-Feb	Central Force Problem: Kepler	92-102	
9	16-Feb	Oscillations	238-247	
10	18-Feb	Oscillations II	250-258	HW3
11	23-Feb	Rotations: Matrices and Euler Angles	134-154	
12	25-Feb	Finite and infinitesimal rotations	155-171	HW4
13	2-Mar	Reading day - no class		
14	4-Mar	Vector rotation, Coriolis force	171-182	
15	9-Mar	Angular momentum and Inertia tensor	184-198	HW5
16	11-Mar	Rigid Body rotation	198-208	
17	16-Mar	Precession and Nutation	208-223	HW6
18	18-Mar	Hamilton Equations of Motion	334-347	Midterm Exam
19	23-Mar	Variational Principles	353-363	
20	25-Mar	Phase Space and Liouville Theorem	419-421	move to after Poisson brackets
21	30-Mar	Canonical Transformations	368-381	HW7
22	1-Apr	Symplectic Approach	381-388	
23	6-Apr	Poisson Brackets	388-408	HW8
24	8-Apr	Selected Topics: Continuum Mechanics	558-566	
25	13-Apr	Special Theory of Relativity	276-297	HW9
26	15-Apr	Relativity: Forces + Collisions	297-309	
27	20-Apr	Relativity: Lagrangian Formulation	312-324	HW10
28	22-Apr	Relativistic Hamiltonian, E&M	349-353	
29	27-Apr	Summary and Review		HW11