		TENT	ATIVE SCHEDULE FOR PHYSICS 402, FALL 2022				
Date		Mtg.#	Reading Assignment	Topic	HW Due	QUIZ	EXAMS
Week 1			Griffiths / Krane / Liboff / Sakurai>	(Krane, Liboff - lower level treatment; Sakurai - higher level treatment)	1111 2 4 6		
	8/29	1	Chap 1-3 / Chap 1, 4, 5, 7 / Chap 1-8 / Chap 1-3	Review of QM, QM in 3D			
	8/31	2	4.1,4.2,4.3 / Chap 7 / Chap 9,10 / A.5, A.6, 3.5-3.7	Hydrogen Atom Review, Angular Momentum Review, Ladder Operators	#0		
Week 2	0.01		,,,,	Tryangem, nem rienen, ranganar memenam rienen, zaaser eperanere			
	9/5		LABOR DAY				
	9/7	3	4.4 / 6.4, 7.6 / 11.6-11.8 / 1.1, 3.2	Spin of the Electron, Pauli Spin Matrices, Stern-Gehrlach, Perturbation Theory	#1	#1	
Week 3			, , , , , , , , , , , , , , , , , , , ,				
	9/12	4	7.1 / * / 13.1 / 5.1	Time-Independent Perturbation Theory			
	9/14	5	7.1 / 7.9 / 13.1 / 5.3	2nd-Order Perturbation Theory and Fine Structure of Hydrogen, Relativistic Correction	#2	#2	
Week 4				g,			
	9/19	6	7.3 / 7.8 / 12.1-12.2 / 5.3	Spin-Orbit Interaction in Hydrogen, J=L+S			
	9/21	7	7.3 / 7.7, 8.6 / 9.4 / 3.7	Addition of Angular Momenta and J^2 eigenfunctions, Clebsch-Gordan Coeffs.	#3	#3	
Week 5	0,2:	•	110 / 111, 010 / 011 / 011	/ tadition of / tingalar momenta and o 2 organianoscone, Globboth Coraan Coolie.	""	110	
	9/26	8	7.5 / 8.2 / * / *	Hyperfine interaction and the 21 cm line			
	9/28	9	7.2 / * / 13.2-13.3 / 5.2	Degenerate Perturbation Theory, Stark Effect	#4	#4	
Week 6	5,20	-	/ / 1012 1010 / 012				
	10/3	10	7.4 / 7.8 / * / 5.3	Zeeman Effect			
	10/5	11	5.1-5.2 / 8.3, 8.4 / 12.3, 12.5-12.6 / 6.1-6.4	He atom, Exchange, Bosons, Fermions, and Pauli exclusion, Identical Particle Wavefunctions	#5	#5	
Week 7	. 5, 5		5.7 5.6 7 5.65, 5.77 12.65, 12.67 5.7 5.7 5.7	attention of the state of t	,,,	,, 0	
	10/10	12	5.2 / * / 12.5-12.6 / 6.4	He atom Ground State Wavefunction			
	10/12	13	5.2 / 8.1-8.5 / 12.4 / *	Excited States of He, Periodic Table, H ₂ Molecule, Bonding	#6	#6	
Week 8	10/12	13	0.27 0.1 0.07 12.17	Excited diales of fie, i chodic rable, fig Wolcodie, Boliding	#0	#0	
	10/17	14	44 4 / * / 40 E / E C	Time Dependent Desturbation Theory Two Level Systems			
		15	11.1 / * / 13.5 / 5.6	Time Dependent Perturbation Theory, Two Level Systems	#7	#7	
	10/19	15	11.2 / * / 13.6 / 5.7	Sinusoidal Perturbation, Atomic Transitions, Rabi oscillations, Selection Rules, Review for Exam 1	#1	#1	
Week 9	40/04	16	44 2 44 4 17 7 142 7 42 0 15 6	Calastian Dulas, Chantenasus Emission, LACEDs, Farmsi Calden Dula			
	10/24	16	11.3-11.4 / 7.7 / 13.7, 13.9 / 5.6	Selection Rules, Spontaneous Emission, LASERs, Fermi Golden Rule			EVAN #4
	10/26	17		Chapters 5, 7 (roughly)			EXAM #1
Week 10		40	0.4.0.0 + 1.7.40 0.4	MIZD Assessment of the second			
	10/31	18	9.1-9.2 /* / 7.10 / 2.4	WKB Approximation	40	40	
\\\\ - 44	11/2	19	9.3-9.4 / 5.6, 12.7 / 7.10 / 2.4-2.5	WKB Approximation, Fowler-Nordheim Tunneling, STM	#8	#8	
Week 11		-00	0.4.0.4.1*.1.5.4	Variational Dringing			
	11/7	20	8.1-8.4 / * / * / 5.4	Variational Principle	40	40	
Masta 40	11/9	21	10.1-10.2 / 6.3 / 7.6-7.8, 14.1 / 7.1	Classical Scattering, Quantum Scattering	#9	#9	
Week 12		00	40 2 40 4 /* / 44 0 44 0 / 7 0 7 7	Controving in Dorturbation Theory, Consideration Treatment Devices for Two Constants			
	11/14		10.3-10.4 / * / 14.2-14.3 / 7.2-7.7	Scattering in Perturbation Theory, Semiclassical Treatment, Review for Exam 2			EVA14.40
	11/16	23		Chapters 8-11 (roughly)			EXAM #2
Week 13		0.4	40 4 1 * 1 4 4 4 4 4 5 1 7 0	Overture Coetterine Born cories			
	11/21	24	10.4 / * / 14.4-14.5 / 7.8	Quantum Scattering, Born series			
	11/23		THANKSGIVING BREAK				
Week 14		0.5	F 0 140 7 10 4 1+	Floatrana in a Matal. Farmi anarmi			
	11/28		5.3 / 10.7 / 8.4 / *	Electrons in a Metal, Fermi energy	шас	114C	
	11/30	26	* / 11.5 / 12.8 / *	Cooper Pairing of Electrons and Superconductivity	#10	#10	
Week 15		07	E 2 C 4 C 2 44 0 44 4 0 0 0 0 40 4 4	Dand Christian in Calida Diaghla The corre			
	12/5	27	5.3, 6.1, 6.2 / 11.3-11.4 / 8.2, 8.3, 13.4 / *	Band Structure in Solids, Bloch's Theorem	JI A A	114.4	
Mart da	12/7	28	5.4 / 10.5, 10.6 / * / *	Superfluidity in He-4	#11	#11	
Week 16		-00	0.0 1 + 1 + 1 +	Time Templetian Devices for Firel Fuers			
	12/12	29	6.8 / * / * / *	Time Translation, Review for Final Exam			
	40/00	00		FINAL EVANCE AND CO. A			FINIAL EXC
<u> </u>	12/20	30	*	FINAL EXAM [8 AM to 10 AM]			FINAL EXAI
			* means no reading assignment from this text. Look e	isewnere!			