

CYL 561: Quantum Chemistry (II semester 2013-14)

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	Topic	# of lectures
1	Introduction, multi-dimensional spaces, dot products, orthogonality	2
2	Waves and wave equation	2
3	PIB: 1D, normalization, Uncertainty, 3-D, spherical	5
4	Tunneling	2
5	Potentials and formalism	2
	Minor I (1-5)	
6	Harmonic Oscillator	3
7	Angular Momentum	3
8	H-atom	6
	Minor II (6-8)	
9	Multielectron systems	3
10	Matrices and Determinants	3
11	Variational theorem	3
12	Perturbation method	3
	Major (all topics)	

Text Books: Physical Chemistry, McQuarrie and Simon; Quantum Chemistry, Ira N. Levine

The total number of lectures: 37 + 5 Q&A sessions

Grading:

Minor I: 20%

Minor II: 20%

Major: 40%

Surprise quizzes: In all there will be eight surprise quizzes that will add up another 20%; 2 before M1, 2 between M1 and M2 and 4 between M2 and Majors.