

PC3130: Quantum Mechanics II

Lecturer: Assoc Prof Quek Su Ying (phyqsy@nus.edu.sg)

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Tentative calendar (AY24/25 Semester 1) [7 Nov: Project due]

		Tues: 10am-12pm; Thurs: 12pm-2pm	Posting/Due dates
Tues (recorded)	13 Aug	Introduction to course; Postulates of QM	Tutorial 1 posted
Thurs (recorded)	15 Aug	Measurements; Compatible observables	
Tues (LT26)	20 Aug	Good quantum numbers; Hydrogen atom as an example	
Thurs (LT21)	22 Aug	Orbital angular momentum	
Tues (LT26)	27 Aug	Multi-electron atoms; Symmetries in QM	Tutorial 1 due; Tutorial 2 posted
Thurs (LT21)	29 Aug	Symmetries in QM	
Tues (LT26)	3 Sep	Angular momentum	
Thurs (LT21)	5 Sep	Angular momentum	
Tues (LT26)	10 Sep	Spin angular momentum	Tutorial 3 posted
Thurs (LT21)	12 Sep	Tensor products; Addition of angular momentum	
Tues (LT26)	17 Sep	Addition of angular momentum	Tutorial 2 due
Thurs (LT21)	19 Sep	Addition of angular momentum	
Reading Week			
Tues (LT26)	1 Oct	Addition of angular momentum; Identical and indistinguishable particles	Tutorial 4 posted
Thurs (LT21)	3 Oct	Identical and indistinguishable particles; Introduction to Part 2; Variational Principle	Tutorial 3 due
Tues (LT26)	8 Oct	Variational Principle; Stationary perturbation theory (non-degenerate)	
Thurs (LT21)	10 Oct	Stationary perturbation theory (non-degenerate)	Tutorial 5 posted
Tues (LT26)	15 Oct	Stationary perturbation theory (non-degenerate); Stationary perturbation theory (degenerate)	Tutorial 4 due
Thurs (LT21)	17 Oct	Stationary perturbation theory (degenerate)	
Tues (LT26)	22 Oct	Stationary perturbation theory (degenerate); Stationary perturbation theory (applications)	Tutorial 6 posted
Thurs (LT21)	24 Oct	Stationary perturbation theory (applications)	Tutorial 5 due
Tues (LT26)	29 Oct	Time-dependent perturbation theory	
Thurs (LT21)	31 Oct	Public Holiday – No lecture	
Tues (LT26)	5 Nov	Time-dependent perturbation theory	Tutorial 6 due; Tutorial 7 posted (no due date; no need to hand in)
Thurs (LT21)	7 Nov	Time-dependent perturbation theory	Project due 23:59
Tues (LT26)	12 Nov	Time-dependent perturbation theory	
Thurs (LT21)	14 Nov	Review	

Last updated: 21 July 2023