

**WRIGHT STATE UNIVERSITY, QUANTUM MECHANICS 711
WINTER QUARTER 2007**

PRINCIPLES OF QUANTUM MECHANICS by R. Shankar – Plenum Press, New York , 2nd edition (1994).

LECTURER: Dr. Gregory Kozlowski – office 253F, telephone 775-3433.

OFFICE HOURS: T, Th (4:10 p.m. – 5:25 p.m), Rm #042 RK

EXAMINATIONS: Mid-term exam and a final will be given during the quarter.

<u>GRADING:</u>	Mid-term exam	100 points
	Final	100 points
	<u>Homework</u>	<u>100 points</u>
	Total	300 points

100% --- **A** --- 85% --- **B** --- 75% --- **C** --- 65% --- **D** --- 50% --- **F** --- 0%

WRIGHT STATE UNIVERSITY
TENTATIVE SCHEDULE FOR QUANTUM MECHANICS 711 WINTER QUARTER 2007

TUESDAY	THURSDAY	HOMEWORK ASSIGNMENT
1/2 Chap 7 – 1,2,3 Quantization of the oscillator in coordinate basis	1/4 Chap 7 – 4 Oscillator in the energy basis	7.3.3 - 6, 7.4.2, 7.4.4 - 6, 7.4.9
1/9 Chap 7 – 5, Chap 8 – 1,2 Path integral formalism	1/11 Chap 8 – 3,4,5	7.5.1 - 4, 8.6.1 - 2
1/16 Chap 9 Heisenberg uncertainty relations	1/18 Chap 10 – 1,2 Systems and their Hilbert space	9.4.1 - 2, 10.1.1 - 2
1/23 Chap 10 – 3 Identical particles	1/25 Chap 11 – 1,2 Translational inv.	10.3.1 - 4
1/30 Chap 11 – 3,4,5 Time reversal symmetry	2/1 Chap 12 – 1,2 Rotational invariance	12.2.1 - 3 MID-TERM EXAM
2/6 Chap 12 – 3 Angular momentum	2/8 Chap 12 – 4,5 Finite rotations	12.3.3 - 5,8, 12.4.3, 12.5.3
2/13 Chap 12 – 5,6 Rotational invariance	2/15 Chap 13 – 1 Hydrogen atom	12.5.13,14, 12.6.8,9 13.1.4
2/20 Chap 13 – 2,3,4 Periodic Table	2/22 Chap 14 – 1,2 Spin	13.2.1, 13.3.1 - 2
2/27 Chap 14 – 3 Kinetics of spin	3/1 Chap 14 – 4,5 Spin dynamics	14.3.2 - 7
3/6 Chap 15 – 1 Addition of angular momentum	3/8 Chap 15 – 2 Clebsch-Gordon coefficients	15.1.1,2, 15.2.1 - 3

THE FINAL EXAM IS SCHEDULED FOR TUESDAY, MARCH 13
5:45 p.m. – 7:45 p.m. IN ROOM 042 RIKE
