

Bruck

Calendar for P415 Fall 1995

- 1.) W Sep 6 elementary statistics . 1.1--1.3
- 2.) F Sep 8 random walk; Poisson 1.3--1.6 A.6(Stirling)
- 3.) M Sep 11 examples ex. 1.9, 1.12, 1.15
- 4.) W Sep 13 statistical formulation of thermo 2.1--2.3;2.5
- 5.) F Sep 15 interactions and changes 2.5--2.8 2.11
- 6.) M Sep 18 heat and work 2.9--2.11; 3.1,3.2
- 7.) W Sep 20 entropy and temperature 3.3--3.7; 3.9,.3.11
- 8.) F Sep 22 thermo laws 3.10--3.12
- 9.) M Sep 25 (Rosh Hashanah) Macroscopic variables 4.1--4.4
- 10.) W Sep 27 extensive/intensive; ideal gases 4,5--4.7;5.1--5.4
- 11.) F Sep 29 thermodynamic calculus 5.5--5.8;A.9; Z11-3
- 12.) M Oct 2 appl of Maxwell relations 5.9,5.10; hard spheres,vdw
- 13.) W Oct 4 (Yom Kippur) Joule-Kelvin;Heat engines 5.10,5.11;Z7,
- 14.) F Oct 6 Heat engines: Clausius 5.12; RM12
- 15.) M Oct 9 (Columbus Day) entropy and cycles Z7, RM14, 5.11
- 16.) W Oct 11 available energy(suppl); sound propagation ex5.8
- 17.) F Oct 13 Exam
- 18.) M Oct 16 Boltzmann factor 6.1,6.2,6.10
- 19.) W Oct 18 Maxwell Distribution 6.3,6.4, Maxwell
- 20.) F Oct 20 canonical partition function 6.5,6.6, 7.1
- 21.) M Oct 23 ideal classical gas 7.2--7.4
- 22.) W Oct 25 equipartition theorem 7.5--7.8
- 23.) F Oct 27 equilibrium kinetic theory 7.9--7.10
- 24.) M Oct 30 effusion 7.11, 7.12
- 25.) W Nov 1 kinetic pressure 7.13
- 26.) F Nov 3 (Last drop day) mean free path 12.1,12.2
- 27.) M Nov 6 transport coeffs 12.3--12.5
- 29.) W Nov 8 transport coeffs; eq 12.5 (ex 12.16) 8.1
- 30.) F Nov 10 phase equilibrium 8.1--8.4
- 31.) M Nov 13 equil of phases and species 8.5,8.6; P7
- 32.) W Nov 15 Clausius-Clapeyron; F,H,G; phase diagram
- 33.) F Nov 17 gas-liquid critical point; 8.6 Sommerfeld 16.C
- 34.) M Nov 20 chem potential 8.7, 8.8
- 35.) W Nov 22 equil via chem potl 8.9, 8.10
- 36.) M Nov 27 chem equil; review
- 37.) W Nov 29 Exam
- 38.) F Dec 1 ideal quantum gases 9.1--9.3
- 39.) M Dec 4 suppl count; grand ensemble 9.4,--9.7
- 40.) W Dec 6 enumeration of states; partition functions 9.9,9.10
- 41.) F Dec 8 electron gas 9.7, 9.16, 9.17
- 42.) M Dec 11 photon gas 9.6, 9.13--9.15
- 43.) W Dec 13 classical limit of quantum statistics 9.9--9.11
- 44.) F Dec 15 low T, BE condense, collective phenomena