

| TENTATIVE SCHEDULE FOR PHYSICS 404, Spring 2011 | | | | | |
|---|-------|----------------------------|--|--------|-------------------|
| Date | Mtg.# | Reading Assignment | Topic | HW Due | Exams |
| Week 1 | | Kittel-Kroemer \ Schroeder | | | |
| 1/25 | 1 | 8 \ 1 | Thermodynamics Part 1 | | |
| 1/27 | 2 | 8 \ 1 | Thermodynamics Part 2 | | |
| Week 2 | | | | | |
| 2/1 | 3 | 1 \ 2 | From micro to macro physics | | |
| 2/3 | 4 | 1 \ 2 | States and multiplicity. Configurations and probability of o | 1 | |
| Week 3 | | | | | |
| 2/8 | 5 | 2 \ 2 | Entropy and Temperature | | |
| 2/10 | 6 | 2 \ 2 | Laws of Thermodynamics | 2 | |
| Week 4 | | | | | |
| 2/15 | 7 | 3 \ 6 | Boltzmann Distribution | | |
| 2/17 | 8 | 3 \ 5 | Helmholtz Free Energy | 3 | |
| Week 5 | | | | | |
| 2/22 | 9 | 3 \ 2, 6 | Ideal Gas | | |
| 2/24 | 10 | 4 \ 7 | Thermal Radiation | 4 | |
| Week 6 | | | | | |
| 3/1 | 11 | 4 \ 7 | Planck Distribution, Phonons | | |
| 3/3 | 12 | 4 \ 3 | Chemical Potential | 5 | |
| Week 7 | | | | | |
| 3/8 | 13 | 5 \ 7 | Gibbs Distribution | | |
| 3/10 | 14 | | Chapters 1-4, 8 (roughly) | | EXAM #1 |
| Week 8 | | | | | |
| 3/15 | 15 | 5 \ 8 | Grand Canonical Ensemble, Gibbs Free Energy | | |
| 3/17 | 16 | 6 \ 2, 6 | Classical Limits | --- | |
| SPRING BREAK 21-25 MARCH | | | | | |
| Week 9 | | | | | |
| 3/29 | 17 | 7 \ 7 | Quantum Ideal Gas | | |
| 3/31 | 18 | 7 \ 7 | Bose Einstein | 6 | |
| Week 10 | | | | | |
| 4/5 | 19 | 7 \ 7 | Fermi-Dirac Distributions | | |
| 4/7 | 20 | 8 \ 4 | Heat Engines | 7 | |
| Week 11 | | | | | |
| 4/12 | 21 | 9 \ 5 | Gibbs Free Energy | | |
| 4/14 | 22 | 9 \ 5 | Chemical Reactions | 8 | |
| Week 12 | | | | | |
| 4/19 | 23 | 10 \ 8 | Phase Transitions | | |
| 4/21 | 24 | | Chapters 5-7, 9 (roughly) | | EXAM #2 |
| Week 13 | | | | | |
| 4/26 | 25 | 10 \ -- | Landau Theory | | |
| 4/28 | 26 | 11 \ 5 | Binary Mixtures | 9 | |
| Week 14 | | | | | |
| 5/3 | 27 | 14 \ 6 | Kinetic Theory | | |
| 5/5 | 28 | 15 \ 1.7 | Heat Conduction | 10 | |
| Week 15 | | | | | |
| 5/10 | 29 | | Review | | |
| 5/17 | 30 | | FINAL EXAM [1:30-3:30 pm] | | FINAL EXAM |
| | | | | | |
| | | | | | |