

Physics 4262: Solid State Physics

Spring 2011

Professor First (first@gatech.edu)

- *Office:* N018 Howey *Lab:* S03/S06 Howey
- *Office Hours:* 4:00–5:00pm Monday & Thursday, or by appointment

Text: *Introduction to Solid State Physics* (C. Kittel) Chapters 1–9 plus selected topics.

Other (possibly) useful books:

- “Solid State Principles” notes (First); posted on T-square.
- Elementary Solid State Physics (Omar)
- Solid State Physics (Burns)
- Solid State Physics (Ashcroft and Mermin)
- Principles of the Theory of Solids (Ziman)
- Optoelectronics (Rosencher and Vinter)
- An interesting set of solid-state simulations (if a little dated) is available for download from pages.physics.cornell.edu/ssss/.

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| Grading: | Exams (2) | 50% |
| | Homework | 25% |
| | Final Exam | 25% |

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| Tentative exam dates: | Friday, Feb. 25 | |
| | Friday, Apr. 15 | |
| | Friday, May 6 | (Final, 8:00-10:50am). |

Homework Policies:

1. **Honor-code:** Students are allowed to consult with one another and to seek other resources to solve homework problems *excluding the use of a Kittel solution manual or prior-year solutions*, but each student must turn in their *own* original work. Violations of the Honor Code will be treated on a case-by-case basis, but students should understand that potential consequences can be severe, including dismissal from Georgia Tech (see links at www.honor.gatech.edu).
2. **Due Date:** Homeworks are to be turned in at the beginning of class on the due date.
3. **Late Homework:** The homework score will be multiplied by 0.5 for each day past the due date; i.e. the homework score decays with a half-life of 1 day, beginning after class on the due date.
4. **Homework drops:** The lowest 10-12% of your homework problem scores will be dropped. Consequently, missing a single assignment shouldn't affect your overall score.
5. **Email submission:** Allowed *only* if you have obtained prior approval from the professor (not TA). Some examples of valid reasons are illness (flu) and essential travel, e.g., for research, funerals, etc. Approval after the fact will be granted only in rare instances.