

Information Concerning Mid-Term Exam 1

The first mid-term exam will be held from 5:00 to 7:00 p.m. Wednesday, February 19 in NPB 1101.

The exam will cover all material discussed in the course concerning (1) charged particles in electromagnetic fields, (2) the variational method, and (3) the WKB method. A list of topics, cross referenced to relevant sections of the course texts, can be found at www.phys.ufl.edu/~kevin/teaching/6646/03spring/topics.html. (Note that we have skipped entirely Shankar's lengthy discussion of the connection between the WKB approximation and the path integral formulation of quantum mechanics.)

You will be allowed to consult Shankar, your lecture notes, and homework solutions (yours or mine). No other written/printed materials will be allowed.

The exam will likely consist of two questions, of roughly equal weight. Each question may deal with more than one of the topics we have covered in the course. (For instance, one question might involve a variational treatment of a particle in a uniform electric field.)

The questions will test your ability to apply the concepts covered in the course to unfamiliar situations. Calculations will be involved, but these will be designed to be much less laborious than the ones assigned for homework.

The following questions may be good practice for the exam:

1. Shankar Exercises 14.4.1 and 14.4.6.
2. Shankar Exercises 16.1.1, 16.1.2, and 16.1.3.
3. Shankar Exercise 16.2.6 and 16.2.7.