Questionnaire
(due Friday, September 29, 2006)

This questionnaire will help me learn about your scientific goals/interests and physics and mathematics background and will allow me to adjust the course in order to better address your interests and maximize your learning benefits.

I. Please tell me about yourself:

1. Your name and e-mail address.
2. Graduate or undergraduate student? What year? If graduate, where and when did you receive your undergraduate degree? What major?
3. Did you ever take a quantum mechanics (QM) course? If yes, in what school? What textbook did you use?
4. If you took QM before, were there any topics that you found especially difficult to understand? What are they? What was the difficulty – physical understanding, math, …?
5. Reasons for taking this course.
6. What are your scientific interests and background (theory or experiment? Condensed matter, particle physics, chemical physics,…?)

II. Please tell me about basic physics courses you have taken (indicate whether these were graduate or undergraduate courses and if you could recall what textbooks you used). Have you had any course(s) on:

1. Classical mechanics?
2. Electrodynamics?
3. Statistical mechanics?
4. Solid State physics?
5. Particle physics?
6. Optics?

III. Please tell me about your mathematics background (indicate whether these were graduate or undergraduate courses and if you could recall what textbooks you used). Have you had any course(s) on:

1. Linear algebra (operators, elements of group theory, matrices, characteristic equation)?
2. Partial differential equations (separation of variables)?
3. Calculus (integrals, change of variables)?
4. Special functions (Bessel functions, Legendre polynomials, spherical harmonics)?
5. Tensor analysis (Levi-Civita symbol, tensor product)?
6. Theory of complex variables (contour integration, calculations with complex numbers)?

IV. Please give me any comments and suggestions on what you expect from the course and what would be helpful to make your learning experience exciting and fun.