

## Textbook Suggestions for the Part I Graduate Exam in Physics

Part I of the Graduate Examination in Physics tests a student's understanding of basic undergraduate physics in the areas of classical mechanics, E&M, relativity, statistical mechanics and thermodynamics, and quantum mechanics. Most of the questions are drawn from the material covered in our freshman and sophomore subjects 8.012, 8.022, 8.033, 8.04, and 8.044. Questions may involve some of the simpler material from our upper level undergraduate subjects 8.05, 8.06, 8.07 and 8.08 and 8.09, but much of the material in these subjects is more appropriate to the Part II exam.

Most students study for the exam by reviewing the textbooks and class notes from courses they have already taken. If you would like to consult other texts, or are unsure about the level of understanding necessary for the exam, you may find the following books useful.

### Classical Mechanics

**An Introduction to Mechanics**, Kleppner and Kolenkow, McGraw-Hill

### Electricity and Magnetism

**Electricity and Magnetism**, Purcell, McGraw-Hill

### Relativity

**Special Relativity**, French, Norton

### Vibrations and Waves

**Vibrations and Waves**, French, Norton

**Vibrations and Waves in Physics**, Main, Cambridge University Press

### Interference and Diffraction

**Optics**, Hecht, Addison Wesley (chapters 9 and 10)

### Thermodynamics and Statistical Mechanics

**Fundamentals of Statistical and Thermal Physics**, Reif, McGraw-Hill

### Quantum Mechanics

**Introduction to Quantum Mechanics**, Griffiths, Prentice Hall