

Ch 21A: Physical Chemistry

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Some years ago I adopted the textbook Molecular Quantum Mechanics by Peter Atkins and Ronald Friedman (Oxford University Press; ISBN 0-19-927498-3) and my lectures follow this text closely. We cover the first 8 chapters but skip chapter 5. Based on the content of these chapters, the syllabus would be:

1. The foundations of quantum mechanics
2. Linear motion and the harmonic oscillator
3. Rotational motion and the hydrogen atom
4. Angular momentum
5. Techniques of approximation
6. Atomic spectra and atomic structure
7. An introduction to molecular structure