

# Physics 481: Condensed Matter Physics

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### 0. Preamble

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- 0.2 Plan of the course

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- 1.2 Three-dimensional lattices
- 1.3 Experimental determination of crystal structure
- 1.4 Complex structures

### 2. Mechanical Properties (Marder, chapters 11 to 14)

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### 3. Electronic Structure (Marder, chapters 6 to 10)

- 3.1 Single electron model
- 3.2 Schrödinger equation and symmetry
- 3.3 Nearly free and tightly bound electrons
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- 4.1 Dynamics of Bloch electrons
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- 6.1 Phenomenology
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