Things I'd like you to learn

10. How does light propagate in free space?

9. How are different forms of opacity combined?

8. How does quantum statistical mechanics differ from classical?

7. When can one assume equilibrium?

6. Under what conditions are blackbodies applicable?

5. How do fundamental interactions (Compton, synchrotron, etc.) work?

4. How is light produced and propagated?

3. What are the signatures of atomic and molecular processes?

2. How can we use lines as diagnostics of physical conditions?

... and the #1 thing I hope you learn:

1. How do we simplify and analyze inherently complicated problems?