Things I'd like you to learn

10. What are the most important properties of gravity?

9. How do gravitational interactions change with more objects?

8. What is hydrostatic equilibrium, and what happens when it fails?

7. How does one make basic estimates using quantum mechanics?

6. How does quantum mechanics enter into astrophysics?

5. What are the properties of equilibrium, and when can we assume it?

4. How do basic symmetries lead to conservation laws?

3. How do we determine what physics is relevant for a problem?

2. How do we check calculations with units, limits, and symmetries?

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

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