## August 25, 2023 MSE 2101 topics

- Prologue: The Three Questions
  - Is there life in the Universe?
  - Is there intelligent life in the Universe?
  - If you were in charge, where would you be looking for life?
- Fermi's paradox: if life is abundant, where is everybody?
- The impact of scientific disagreement on science
- The roles of astronomy, planetary science, biology, chemistry...
- When we say *life*, what do we mean?
- How to define life?
  - does it have order?
  - does it reproduce?
  - does it grow?
  - does it utilize energy?
  - does it respond to the environment?
  - does it evolve and adapt?
- The biological definition of *life*