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1 | So, let's do biology

What makes Biology different?

- Less predictable
  - Less laws + more entropy
  - Changing systems
- Different scales
- Organisms
  - Different genius
  - Unique constitution
- Wider range + more noticiable — on the "scale" of humans
- Emergent properties over time, not static
- Moving target of study

  Biology is undergoing a serious revolution at the moment…

Biology's Guiding Principles

1. Simple set of rules dictates self-assembling of systems
2. Units of order/structure contributes to biological system
3. Instructions + rules governing structure and order built into self-contained units that comprise bigger systems
4. Biological systems has many rules of structure that drive changes to behaviorial and changes to rules themselves

Life's levels of organization

1. Biosphere
2. Ecosystems
3. Communities
4. Populations
5. Organisms
6. Tissue
7. Cells
8. Organelles
9. Molecules

"Biology", in the most reductionistic sense, is quite deterministic.

But! This is changing. A new field of "systems biology" now includes new understanding and methods to track "rules" across all organizations, and thinking of the whole system, well, as a whole, which of course introduces changes that make biology less deterministic.

2 | Course Aftercare

- Luke De added to the Biology Team

  - Teaching 2 Bio classes
  - Fill time
- Trip Sweeney

Class systems + structures

- Class Canvas Page
  - Resources — textbooks, templates, and essential class information **should probably read these!!**
    * One book has an AP Biology focus
    * The other has a more holistic focus
    * Optional readings may be pulcked from both
    * *Tip: download these*
  - Luke's videos
    * Templates
    * Class expectations
    * Course structures
    * "The boring stuff"
  - One-on-one meetings: *Friday tutorial*
  - "Flipped learning" methods employed for instruction