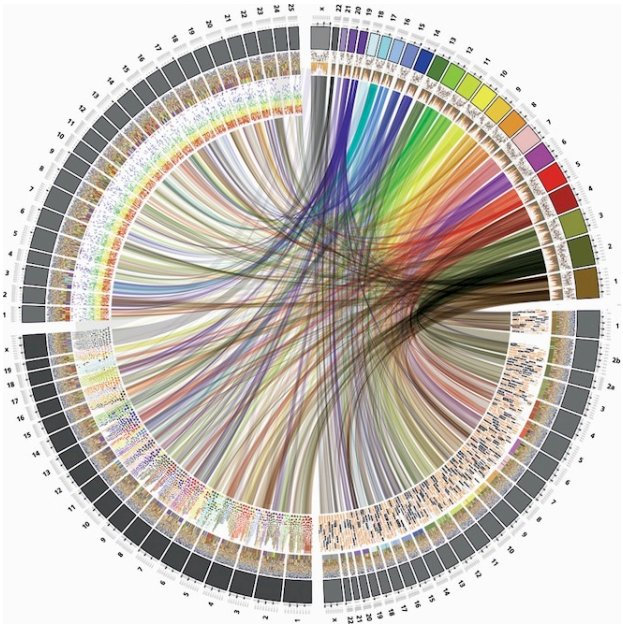
Systems Biology

Simulation Evolution

Fall 2017

Viruses Antibiotics Resistance Cancer mutating replicators



Models are the maps of modern biology.

Learn to read them.

Course website: evosysbio-course.discovery.wisc.edu

This course is about the bigger picture. About making connections. About making models.
Molecules in cells. Individuals in ecosystems. Evolution of cancer cells. Long-term evolution.

You name it. You model it. You map it.

Evolve your science skills by mapping your favorite part of biology.

In this course you will:

- Pick your own research topic and work with others in an interdisciplinary group
- Hone your problem-solving skills in an active-learning environment
- Learn the 5 W's of modeling: **W**hat system, **W**hich parts, **W**hen actions occur, **W**here, & **W**hy?
- Explore the predictive power of modeling in biology, draw boundaries, recognize limitations
- Learn how to use a modeling tool designed to be accessible and mathematically accurate
- Receive one-on-one help from an expert with 15+ years of modeling experience
- Learn how to write the grants needed to fund your scientific research instead of taking exams

Prerequisite: Only an interest in interdisciplinary approaches to modeling in biology.

Open Enrollment: Undergrads and grad students from any field related to Biology, Medicine, Chemistry, Physics, Math, Stats, Comp Sci, and Engineering are welcome!

Questions? Email: loewe@wisc.edu

The Evolutionary Systems Biology Course

3 Cred | Tue Lec 4:00-5:15pm • Thu Lab 4:00-6:00pm | by Laurence Loewe

For now use Genetics 677-Sec11 | Class #: 61566 (Genetics) & 61707 (Med. Genetics)

New course number will be: Genetics 546 'EvoSysBio: Modeling in Evolutionary Systems Biology'