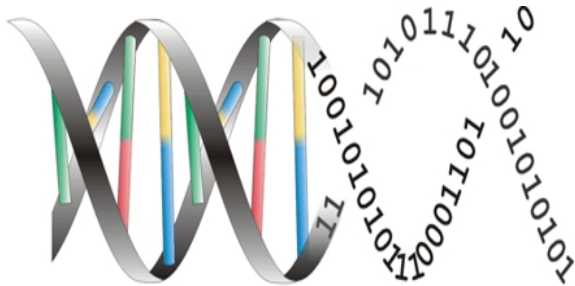
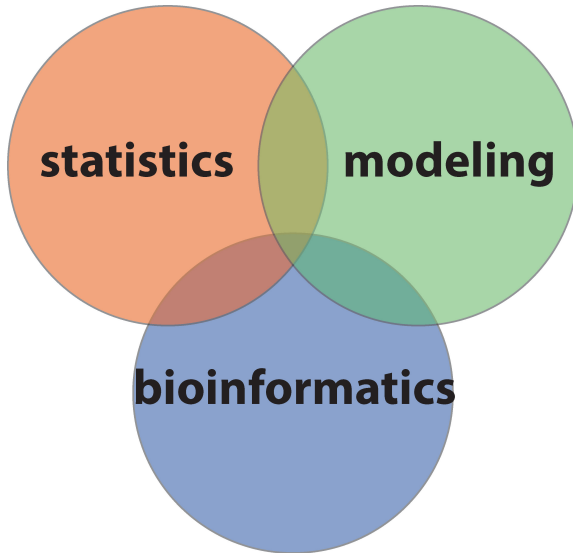


Lecture 01 - Welcome to Introduction to Computational Biology (ICB)

Why biocomputation?



Why biocomputation?



Course Philosophy

- ▶ Teach you enough to be dangerous!
- ▶ Focus on exposure and general solutions rather than mastery of a particular tool
- ▶ Allow you to recognize when to use tools
- ▶ Not a bioinformatics, statistics, or modeling course (but those are available)

Learning Goals

1. Use of a powerful means to interact with local and remote computers (Unix)
2. Scripting using Python or R
3. Best practices and applications

We'll spend approximately 1/3 of the semester on each of these goals!

Two principle aspects of programming

1. Conceptual building blocks – the focus of lecture (MW)
2. Language-specific syntax – the focus of tutorials (F)

Class preparation

- ▶ No book
- ▶ Readings or activities before many class meetings
- ▶ Readings and assignments will be available on Sakai
- ▶ Materials also on GitHub -
https://github.com/joneslabND/ICB_Fall2017

Sakai

- ▶ Announcements
- ▶ Resources
- ▶ Forum

Components of the Course

Lots of moving parts because we are covering a lot of ground.

Each of these components are designed and included to enhance your learning!

1. Quizzes
2. Good & Bad
3. Graded Exercises
4. Group Projects
5. Final Exam

Tutorial sections

- ▶ doesn't matter what section you are registered for
- ▶ what are you more interested in right now - R or Python?
- ▶ we'll let you know before Friday where to go, but we won't cover scripting for a few weeks

For Friday

- ▶ look at first episode of Shell Lesson on Software Carpentry
- ▶ download required files
- ▶ OSX and Linux users are all set; Windows users need to install CygWin



Cygwin is a program that emulates Unix within Windows.