QIIME (+ Linux) Workshop 2015

Introduction to Linux

**Date:** August 10th, 2015, 9 am – 1 pm

**Instructors:** Jessica Kirkpatrick (HPCBio), Jenny Drnevich (HPCBio)

**Location:** 607 IGB

Class Materials:

- Presentation
- Linux cheat sheet
- Getting on a UNIX-based terminal
- Video recording I (8 am - 12 pm; skip first hour)
- Video recording II (12 pm - 1 pm)

Additional Linux Resources:

- **Beginner Linux - self-guided tutorials for extra practice**
  - Tutorial from the book *UNIX and Perl to the RESCUE!*
  - Parts 1 and 2 cover UNIX
  - [http://korflab.ucdavis.edu/Unix_and_Perl/current.html#part2](http://korflab.ucdavis.edu/Unix_and_Perl/current.html#part2)
  - SIB tutorial
    - If it asks you to log in, just log in as a "guest user"
    - Click on "UNIX elearning module" at the bottom to get started
  - University of Surrey tutorial
    - [http://www.ee.surrey.ac.uk/Teaching/Unix/](http://www.ee.surrey.ac.uk/Teaching/Unix/)
  - Ryan's Tutorials
    - [http://ryanstutorials.net/linuxtutorial/](http://ryanstutorials.net/linuxtutorial/)

- **Linux Books**
  - *UNIX and Perl to the RESCUE!* by Keith Bradnam & Ian Knorf
  - *Developing Bioinformatics Computer Skills* by Cynthia Gibas & Per Jambeck
  - *Linux Pocket Guide* by Danial J. Barrett
  - *Beginning Shell Scripting* by Eric Foster-Johnson, John C. Welch, & Micah Anderson
  - *Learning the bash Shell* by Cameron Newham
  - *bash Cookbook* by Carl Albing, JP Vossen, & Cameron Newham

- **Linux-related Software**
  - PuTTY: Allows remote access from a Windows computer to a Linux based terminal.
    - [http://www.putty.org/](http://www.putty.org/)
  - Mac already has a UNIX-based terminal pre-installed. You can find it in Applications -> Utilities -> Terminal

- **Cluster Resources**
  - Biocluster help page
  - Campus cluster help page
  - How to submit a cluster job
  - qsub script generator

Introduction to QIIME & Upstream Analyses
Class Materials:

Slides:

- Chris Wright's presentation: pptx ; pdf
- Introduction to QIIME and Upstream Analyses
- Video recording (9 am - 1 pm)

Example dataset files:

- Condensed sequencing report
- FASTQC report for forward reads of archaea dataset
- Upstream analysis homework

Downstream Analyses in QIIME

Date: August 14th, 2015, 9 am – 1 pm

Instructors: Jessica Kirkpatrick (HPCBio), Jenny Drnevich (HPCBio)

Location: 607 IGB

Class Materials:

Slides:

- Downstream Analyses in QIIME
- Statistical Analyses in QIIME
- Video recording (9 am - 1 pm)