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
  - 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/
  - Ryan's Tutorials
    - 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 Daniel 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/
  - 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

**Date:** August 12th, 2015, 9 am – 1 pm  
**Instructors:** Jessica Kirkpatrick (HPCBio), Chris Wright (CBC), Jenny Drnevich (HPCBio)  
**Location:** 607 IGB

**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)