

CB2-101 – Bioinformatics Computing GBSC 703-01A (3 Credits)*

Computational Biology and Bioinformatics (CB2) Course at UAB

<http://www.uab.edu/cb2>

<http://cmb.path.uab.edu/training/cb2-101.html>

Fall 2016

Nov 3- 18, 2016

9:00 a.m. – 1:00 p.m.

(Location: Volker Hall VHG073)

Course Director:

Malay Basu, PhD

West Pavilion, Room P220

934-5251

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Course Program

Week 1: Nov 3-4

Introduction to Linux

Linux Commands and Scripting

Week 2: Nov 7-11

Unix toolchains and programming languages

Introduction to R and Bioinformatics data parsing

Basic statistics in R

Bioinformatics using R

Reproducible research in R

Week 3: Nov 14-18

Homology search BLAST and HAMMR

Advanced topic: Molecular evolution

Large-scale data analysis/introduction of NGS

Basic pipelines in NGS

Mutational processes and VCF

Introduction to RNASeq

Reference:

Bioinformatics Data Skills (2015) Vince Buffalo

Registration:

The course requires registration through online form:

<https://goo.gl/forms/6hsoAXy93qd1Tebk1>

*** If you're a graduate student and willing to get credit for this course please contact the course director directly.**

*** Earlier version of the course was a prerequisite for our advanced bioinformatics course, CB2-201. Because of the restructuring and incorporation of many materials from this course into the current one, there will be no CB2-201 offered next-year.**