

CB2-101 – Bioinformatics Computing

GBSC 703-01A (3 Credits)*

Computational Biology and Bioinformatics (CB2) Course at UAB
<http://cmb.path.uab.edu/training/cb2-101.html>

Fall 2021
Nov 4-19 2021
12:30 – 4:30PM Tuesdays and Thursdays
9:00 a.m. – 1:00 p.m. otherwise

Course Director:

Malay Basu, PhD
West Pavilion, Room P220
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Course Program

Week 1:

Introduction to Linux
Linux Commands and Scripting

Week 2:

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:

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. Follow instruction on the course website.

*** 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.**