

# **CB2-101 – Introduction to Scientific 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 2015**

**Nov 5- 20, 2014**

**9:30 a.m. – 1:30 p.m.**

**(Location: Volker Hall VHG073)**

### **Course Director:**

Malay Basu, PhD  
West Pavilion, Room P220  
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### **Guest Lecturer:**

Emidio Capriotti  
University of Düsseldorf,  
Düsseldorf (Germany)

### **Course Program**

#### **Week 1: Nov 5-6, 2015**

11/05 Introduction to Linux  
11/06 Linux Commands and Scripting

#### **Week 2: Nov 9-13, 2014**

11/09 Unix toolchains and programming languages  
11/10 Introduction to python  
11/11 Data Structure in python  
11/12 Functions and modules  
11/13 Python scripting

#### **Week 3: Nov 16-20, 2014**

11/16 Introduction to R  
11/17 Basic statistics in R  
11/18 Bioinformatics using R  
11/19 Introduction to Bioconductor  
11/20 Reproducible research in R

### **Reference:**

Bioinformatics Data Skills (2015) Vince Buffalo

### **Registration:**

The course requires registration through online form:

<https://goo.gl/KW2wzD>

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

**\* The course is a pre-requisite for our Bioinformatics course "CB2-201 Computational Biology and Bioinformatics" that will be offered in February, 2016. If you have plans to attend CB2-201 then we strongly suggest that you attend CB2-101.**