TRMD 705
Introductory Bioinformatics

Spring 2016 (3-Credit)
Wednesday Mornings (9-11:30 AM) at the Kaka'ako Campus In JABSOM

Why Take this Course?

This course is an introduction to fundamental concepts in bioinformatics with a strong emphasis on hands-on training. This course will develop awareness of web-based resources, and will motivate to use and explore wide range of publicly available databases. Students will also be exposed to bioinformatics algorithms and open source scripting languages such as R, Perl and Python in multi-platform environment.

Objectives of the Course:

1. To understand the interdisciplinary field of bioinformatics and its scope and application
2. To navigate through web-based resources and biological databases to find answers of bioinformatics-related questions
3. Use and understand commonly available bioinformatics tools and interpret results
4. Find scientific literature in bioinformatics to expand and deepen knowledge

Materials Covered:

Introduction to bioinformatics, pair-wise sequence alignment, multiple sequence alignment, molecular phylogeny, microarray and next generation sequencing (RNA-Seq) data analysis, and programing in R, Perl & Python.
Requirement: Students are required to bring their laptops in the class and participate in projects.

Instructor:

Vedbar Khadka, Ph.D., Department of Tropical Medicine
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For more information, please call 808-692-1462 or 808-692-1465