BIOL-GA 1127 Bioinformatics and Genomes

Instructors:
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Course Description:
The explosion of the availability of genome-wide data has also led to a vast increase in bioinformatics research and tool development. Bioinformatics is becoming a cornerstone for modern biology, especially in fields such as genomics. It is thus crucial for biologists and computer scientists interested in biology to understand the basic ideas and to learn fundamental bioinformatics techniques. This course will focus on sequence based methods for alignment and finding small functional sequence motifs (TF binding, microRNA binding sites, etc.), phylogeny (building species trees, phylogenetic footprinting, etc.), and RNA structure modelling using hidden state models.

Pre-requisite:
N/A

Textbook and Required Materials:

Grading:
Project 70%
In-class theory exam 15%
Paper presentation 15%