



Bioinformatics (Computational Biology)

Spring 2017

Instructor: Sadegh Sulaimany

Class: Room No. 407, Eng. Building No. 4, University of Kurdistan

Class Hours: Saturday 8:00 AM – 10:30 AM

Textbook:

An Introduction to Bioinformatics Algorithms by Neil C. Jones and Pavel A. Pevzner, MIT Press, 2004.

Syllabus:

Introduction to Molecular Biology
DNA Sequence Alignment
Clustering (Microarray Analysis)
Graphs in Biology (DNA Sequencing)
Molecular Evolution and Phylogeny
Motif Finding
Genome Rearrangement
Pattern Matching (Suffix Tree,...)
Biological Networks

Assessment:

- Homework: 10-15%
- Midterm: 25% (17 March)
- Final Exam: 40%

- Project: 25% (Presentation: 19 May, 26 May, 2 June)
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Project:

- Everyone should present a hot topic in computational biology (deadline to determine the title is 10 March), otherwise a title will be assigned
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Cheating:

Cheating includes and is not limited to looking at a neighbor's answer sheet during an in class exams, copying the solution of assignment. You are encouraged to discuss homework problems with you class mates but every students is expected to solve problems by themselves.