Objectives

This course is intended as an introduction to the fundamental algorithmic issues that arise in bioinformatics. Emphasis will be placed on problem formulation, where many problems in genomics and proteomics will be seen as graph-theoretic or optimization problems. Primary topics include sequence alignment, phylogeny reconstruction, genome rearrangements, sequence assembly, protein-folding, and high-performance bioinformatics.

Course Information

The definitive source for course announcements, reading assignments, reference materials, and class handouts is the course web page. Please consult it regularly.

Text and Readings

Unfortunately, there is no single text that adequately covers the material in this class. Course readings will be drawn from the textbook, research articles, and instructor notes.

Grading:

- Assignments (20%)
- Final Exam (20%)
- Research project (60%)

Academic Integrity

Aggie Code of Honor (http://www.tamu.edu/aggiehonor)

"Aggies do not lie, cheat, or steal nor do they tolerate those who do." Students are expected to attend all classes, complete assignments on time, and participate fully in class discussions and group projects. Violations will be handled in accordance with the Texas A&M University Regulations governing academic integrity.
Plagiarism

As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writings, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without research cannot safely communicated. If you have any questions regarding plagiarism, please consult the latest issue of the Texas A&M University Student Rules, under the section Scholastic Dishonesty.

American with Disabilities Act

The Americans with Disabilities Act (ADA) is a federal antidiscrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities to be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, services for students with disabilities in Room 126 of Koldus Building, or call 845-1637.