The Human Genome was just the Beginning.

BIOE/CSE 308-408 Bioinformatics: Issues & Algorithms

Professor Brian Chen

Spring 2012

TR 9:20-10:35

New technologies have opened powerful new strategies for understanding life and how it works at a molecular scale. These technologies are the core of pharmaceutical drug development and the "biotech revolution." They are also dependent on a computational field called bioinformatics.

- Cross Cutting Interdisciplinary Projects with partners in Bioengineering, Biological Sciences, and Computer Science and Engineering.
- The course can be completed without programming.
- Usage of UNIX systems, software automation "scripting" and file handling is required, and will be taught.

- An Introduction to Modern Biology for Computer Scientists
- An Introduction to Modern Computing for Biologists
- High Throughput Sequencing
- Genome Assembly
- Sequence Alignment
- Phylogenetic Reconstruction
- DNA Microarray Analysis

"Great teacher, very nice & helpful" "excellent professor" – 2011 students



Prereq: CSE17/18 **OR** permission of instructor (chen@lehigh.edu)

