

Student Learning Objectives

By the end of this class you should understand the following:

- The information that may result from sequencing a genome
- The techniques and purpose of genetic maps
- The history of sequencing the human genome and its future potential
- The primary study and tools of the field of bioinformatics
- The relationship between the genome and the proteome and exome
- Concerns about ownership and genomes

Support videos:

- Human genome project
 - <http://www.youtube.com/watch?v=F5LzKupeHtw>
 - http://www.youtube.com/watch?v=vAImM_vIICs
- Documentary
 - <http://www.youtube.com/watch?v=4Gs9Cjwaxms>

Vocabulary:

- Genome
- Chromosomal linkage
- Chromosomal recombination
- Centimorgan
- Positional cloning
- Human genome project
 - Map-based sequencing
 - Whole genome sequencing
- Bioinformatics
 - Comparative genomics
 - Structural genomics
 - Pharmacogenomics
- Annotation
- Open reading frame
- Single nucleotide polymorphism
- Haplotype
- Copy number variant
- Exome
- Proteome