



BIO 482C: Human Genomics

Course Overview

Recent advances in genetic technology have revolutionized our understanding of the human genome. Beyond just mapping its content, we are now beginning to appreciate how the genome has evolved and what sorts of genomic differences occur between individuals. These discoveries have important implications for our understanding of the history of our species, the forces that have shaped our evolution, and the impacts of genomic variation on human health. This course will survey these topics, with a particular focus on tying scientific discovery to its application in our own species.

Does human 'race' have any biological basis in the genome? Are humans still evolving? What sorts of disease have a genetic basis? How do we screen for these diseases, and what can genetic screening accomplish?

These are the types of questions we will explore over the course of the semester.

Course Content

- Content and organization of the human genome
- Genomic analysis techniques
- Molecular basis of human genomic variation
- Genetic disease and screening
- Cancer genomics
- Pharmacogenomics
- Recent evolution in the human genome

Course Details

Lecture and discussion. MWF 11:30 – 12:20. Prerequisites: BIO 344 and either BIO 340 or 350.

Contact

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