

# BIOL 039: Epigenetics

Sequencing of the human genome was not the endpoint of our goal in understanding human genetics. The chemical modifications to DNA and histones, as well as the chemical interactions involving the manufacture of proteins, represents a second level of human genetics termed epigenetics or epigenomics. Epigenetics refers to the study of heritable changes in gene expression that occur without a change in DNA sequence. Research has shown that epigenetic mechanisms provide an additional layer of transcriptional control that regulates how genes are expressed. Epigenetic abnormalities are associated with genetic disorders, cancer, autoimmune diseases, aging and pediatric syndromes, among others.

**Credits:** 5

**Class Type:** Workshop

**Program:** Biology, Genetics, and Medicine