

Name of School:

Name of Course: Genetics

Instructor Information

Name:

E-mail address:

School phone number:

Web page address:

Best times to be reached:

Course Description

Genetics is the investigation of the principles, lab procedures, and applications associated with the study of the inheritance of traits. This course provides students an opportunity to explore current techniques and research in genetics, including the Human Genome Project, genetic screening, gene therapy, and environmental influences.

District Standards and Power Benchmarks

Standard 1: Understands and applies the principles of scientific inquiry

Benchmark A: Formulates and revises scientific explanations and models

Benchmark B: Understands how scientific knowledge changes with new evidence

Benchmark C: Uses technology and mathematics to perform accurate scientific investigations and communications

Benchmark D: Demonstrates safe handling procedures

Standard 2: Understands and applies the principles of life science

Benchmark A: Explains patterns of inheritance

Benchmark B: Describes the form and function of DNA in genes and the process of heredity

Benchmark C: Describes how changes in DNA can result in mutations

Course Information

This is a one term class with the pre-requisite of molecular biology. 0.5 credits will be earned for the completion of this course.

Course Outline/Calendar

Unit 1: Mendelian Genetics and Variations

Unit 2: Chromosome Theory of Inheritance

Unit 3: Biotechnology

Text/Other Required Materials/Resources

Klug, W. & Cummings, M. (2003). *Concepts of Genetics* (7th Edition). Upper Saddle River, NJ: Pearson Education, Inc.

Instructional Procedures & Support

Classroom Management Procedures

Assessment Plan

The students are assessed on a point system. In addition to classwork, labs, tests and quizzes, the students are assessed on: a Mendelian Assessment, and a Spreadsheet Integration Project.

Grading System

90 – 100	A
80 – 89	B
70 – 79	C
60 – 69	D
0 – 59	F