**Genetics** Biol-UA 30 - MW 12:30-1:45, 12 Waverly, L120
Professor Christine Rushlow  [chris.rushlow@nyu.edu](mailto:chris.rushlow@nyu.edu)
Office hours: Thurs. 12-2; Brown 1001 (please make an appointment).
Recitation: Tuesdays at: 9:30, 11:00, or 2:00.

**Textbooks:** "An Introduction to Genetic Analysis," 10th edition. Griffiths et al. published by Freeman. The "Student companion with complete solutions" has all answers to end-of-chapter problem sets.

**Course Description:** An introductory course in genetics covering classical Mendelian genetics, gene function and regulation, gene knock-out and replacements techniques and applications, and aspects of cancer genetics and developmental genetics. Recent studies in the genetic basis of human diseases are discussed throughout the course.

**Prerequisites:** Molecular and Cell Biology I is a co-requisite so if you have not taken it, you must take it along with Genetics.

**Syllabus/Topics covered:**

- Single gene inheritance
- Sex linkage
- Independent Assortment
- Gene Linkage and Recombination
- Bacterial Genetics
- Gene Interaction
- Forward genetics
- Genetic Screens
- Gene Isolation
- Cloning techniques
- Reverse Genetics
- Targeted expression
- Gene diagnostics
- Gene therapy
- Genomics
- Comparative Genomics
- Chromosomal changes
- Genes and Cancer
- Stem cells
- Developmental Genetics
- Population Genetics