**01:447:384 GENETIC ANALYSIS I**

**VERY IMPORTANT NOTICE** – This course is the first half of a 2-semester sequence intended for students majoring in **GENETICS**. This half of the sequence (447:384) **IS NOT** equivalent to the course 01:447:380 (Genetics). Therefore, 447:384 alone **WILL NOT** fulfill the "genetics" requirement of the Life Sciences Core. Student must successfully complete **BOTH** 447:384 and 447:385 in order to satisfy the "genetics" requirement. If a student intending to major in Genetics takes the 2-semester Genetic Analysis sequence, then changes his/her major to Biological Sciences, 4 of the 8 credits **WILL** apply towards the "elective" requirement of the major in Biological Sciences.

**Offered**

Fall

**Credits**

4

**Prerequisites**

General Biology 01:119:115-116 or 01:119:101-102 and General Chemistry 01:160:161-162 or 01:160:163-164

*Special permission numbers are required for everyone*. Please confirm you will have completed the required courses, and are, or have committed to, becoming a Genetics major, then send an email to [geneticsoffice@biology.rutgers.edu](mailto:geneticsoffice@biology.rutgers.edu)  or call 848-445-1146. You must specify the recitation section for which you would like to have a special permission number.

**Course Description**

Experimental methods and concepts in genetics. Emphasis on application of principles of genetic research. This course is half of a year-long sequence. Students will cover topics in greater depth than is possible in Genetics (447:380). Part 1 covers transmission genetics and breeding analyses, basic molecular genetics, isolation and characterization of mutations, gene regulation, and chromosome structure and function. The class will be a combination of lecture and discussion.

**Course Satisfies Departmental Learning Goals**

1. Knowledge specific goals: Know the terms, concepts and theories in genetics.

2. Integrate the material from multiple courses and research. That is, to think holistically and to see the whole as well as the parts.

This course also satisfies the SAS core curriculum goals of the **21st Century Challenges [21C]**.

**Exams, Assignments, and Grading Policy**

Weekly problems and essays, short quizzes each class period and 3-4 exams. Final exam is comprehensive. Attendance is mandatory and class participation and group work is a significant part of the grade.

**Course Materials**

**eBook:** Hartwell, pending details

**Supplemental readings:**

Will be made available via the course Sakai site.

**Course Closed?**

To request an spn,  please contact Kathleen McDonald in the Genetics Undergraduate Office ([geneticsoffice@dls.rutgers.edu](mailto:geneticsoffice@dls.rutgers.edu)).

**Faculty**

Dr. Verzi ([verzi@biology.rutgers.edu](mailto:verzi@biology.rutgers.edu))

\*\* All information is subject to change at the discretion of the course coordinator.