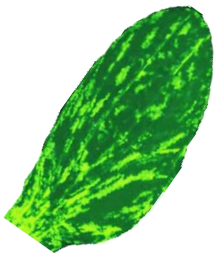
BIOL / GNET 621

Genetic Analysis



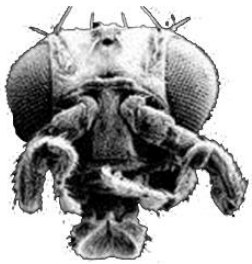
Greg Copenhaver & Jeff Sekelsky

Tues, Thurs 11:00 - 12:15
Fri 2:40 - 3:30 (recitation)

BIOL/GNET 621 is intended to provide an intensive introduction to modern genetic analysis based on classical and contemporary paradigms, drawing on examples from a wide range of model organisms. There are two class meetings per week (in person but recorded). The material covered in lectures is reinforced through problem sets and readings of research and review articles. There is a weekly recitation, during which students lead discussions of readings and work on problem solving, under the guidance of a teaching assistant. There are no prerequisites for graduate students, though a previous course in genetics is helpful

Topics include:

- **Mendelian genetics, recombination and mapping**
- **chromosome structure and function**
- **mitosis & meiosis**
- **meiotic drive and gene drive**
- **mutations and mutagenesis**
- **complementation, epistasis, and pathway analysis**
- **mosaicism and mosaic analysis**
- **transposoable elements**
- **non-Mendelian inheritance**
- **RNAi**
- **epigenetics**



Required for students in Curriculum in Genetics and Molecular Biology

Recommended for students in other PhD programs