

This CRISPR Genome Editing course covers the subject in three broad categories:

- 1): The Genetics of Genome Editing using CRISPR**
- 2): Molecular Biology and Fluorescent Reporter Imaging**
- 3): Theory and Application of CRISPR**

- Week 1:** Setting up and scoring the first generation of CRISPR crosses. Overview of the class goals and introduction to CRISPR Genome Editing of GAL4 lines.
- Week 2:** Setting up and scoring the second generation of CRISPR Genetics. Here, the edited fly is isolated. Introduction to microdissection and Green Fluorescent Protein (GFP) Reporters. Lectures on CRISPR biology, continued.
- Week 3:** Setting up and scoring the third generation of CRISPR Genetics, where the edited fly is stabilized. Beginning of characterization of the edited fly. Lectures on CRISPR biology, continued.
- Week 4:** Dissection and fluorescent imaging of parental and CRISPR-edited flies. Lectures will focus on progressing Work and open Questions.
- Week 5:** Setting up the final generation of CRISPR genetics. Finishing up of characterization of edited fly. Preparation for presentation.
- Week 6:** Week 6 consists only of 2 days, where students present their results to each other in an end-of-course conference.