

**Eukaryotic Genetics**  
Biol 4460, Biol 5460  
Tuesday Thursday 9:30-10:50 WH310  
Pamela Padilla, Ph.D.

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**LSB 220 Office Hours: Tuesday, Thursday 11:00-12:30**

Reading material and powerpoint lectures available through Blackboard

Prerequisites: Genetics and Cell Biology. Suggest Molecular Biology or Biochemistry.

**Course Goal:** To gain an understanding of eukaryotic genetic research and theory, use of model organisms for genetic studies, significant genetic discoveries, and how basic genetic research benefits the health and welfare of humans. This course is dedicated towards understanding DNA and chromosome structure, genomic analysis, use of genetic model organisms (fruit flies, yeast, nematodes, zebrafish and mice), genetic screens, developmental genetics, human genetics, genetic diseases, and the role of genetics in cancer and obesity. An important aspect of scientific research is being capable of communicating scientific ideas and results. It is valuable for students to practice such communication. I have designed this course so that students gain experience in discussing and communicating scientific research and ideas instead of merely memorizing facts.

**Grading:**

Attendance (10%)

Class Discussion and Participation (10%)

Group Presentation (10%)

Individual Research Project Presentation (10%)

Exams; 3 exams each worth 15% (45% total)

Written Proposal (15%)

- Attendance will be taken everyday. It is your responsibility to sign the roll sheet.
- I expect everyone to read the research paper assignments and to participate in classroom discussions of assigned research articles.
- We will read several research articles, you will be required to read the articles, and write a brief page summary page regarding the article to help with your class discussions.
- Grading: A 100-90; B 89-80, C 79-70, D 69-60, F 59 and below
- Graduate and undergraduate students will not be graded at the same level.
- Holidays: Thanksgiving.
- If you have a qualifying disability as defined by the ODA and need special accommodation, you must show me the paperwork from the ODA office by the 4<sup>th</sup> class.

Genetics is an exciting and intellectually rewarding subject. It is a field that has allowed scientists to better understand biology and enhance our lives. It is my goal that this course will be fun, informative, and lead to a greater understanding of genetics. My advice is to attend class, participate in discussions, do not procrastinate, and seek assistance when needed. Do not be intimidated by writing or speaking about scientific ideas-have fun learning!