



## HUMAN GENETICS AND MODERN SOCIETY – BILD 20 SPRING 2021

LECTURE: TUESDAY/ THURSDAY: 11:00 -12:20

SECTIONS: 1 HOUR /WEEK

MIDTERM EXAM: 20 MAY 2021

FINAL ASSESSMENTS: 8 JUNE 2021

PROFESSOR LORRAINE PILLUS (through Canvas or [lpillus@ucsd.edu](mailto:lpillus@ucsd.edu))

Office hours: after lecture on Thursday and by appointment

### Section Leaders and OH

Tuesday 1-1:50

Wednesday 4-4:50

and 5-5:50

Thursday 2-2:50

**Jenny Zhu** (OH Tues 2-3 pm)

**Danielle Gelsinger** (OH Mon 7-8 pm)

**Samantha Ivezich** (OH Thurs 6-7)

**Course Description:** BILD 20 will introduce students to fundamentals of human genetics, principles of inheritance and applications of genetics and genomics as forensic genetics, genetic screening, and genetic engineering. Social impacts and ethical implications of these applications will be discussed. We will discuss the principles of human genetics in the context of both the *concepts* they reveal and the *experiments* that allowed the articulation of these concepts. Because human genetics is a dynamic, living science, we will also consider unanswered questions, important areas of current research, and future directions and applications.

### **Learning Objectives:**

- Understand the nature of genetic variation and its contributions to phenotypic variation in health, development and disease.
- Learn about study designs and their applications to evaluate the role of genes versus the environment in phenotypic variation.
- Learn about the development of hypotheses and how to test them.
- Use online resources to investigate genetic variants and their contributions to phenotypes and disorders.
- Develop skills to read, critically evaluate and discuss reports on genetics in the media.

**Welcome! We look forward to working with you this quarter!**

*Image: Jane Ades, NHGRI*