Genetics (BICD 100, A00)

General Information

Lecture time and location:

Tuesday and Thursday 5:00-6:20pm. PETER 110.

Professor:

Liam O'Connor Mueller, Ph.D. (he, him, his)

Professor contact:

lomueller@ucsd.edu (Please put "BICD 100" somewhere in the subject line!)

Professor office hours:

Tuesday: 2:30-4:00pm

Thursday: 12:30-2:30 pm

Office hours are hybrid in person and on zoom. In person location is HSS 8042. Zoom link found on Canvas

Additional office hours can always be made by appointment. E-mail me your schedule and we can find a time to meet.

Textbook:

Essentials of Genetics. Klug, W. S., M. R. Cummings, C. A. Spencer, M. A. Palladino, D. J. Killian, (10th Edition). Pearson.

Prerequisites:

BILD 1 and BILD 3 are prerequisites for this course and I strongly recommend reviewing that material before the start of this course.

Section Activity information:

Section	Time	Location	IA	IA contact
A01	Tu: 7-7:50pm	CENTR 220	Ron Espiritu	rjespiritu@ucsd.edu
A02	Tu: 8-8:50pm	CENTR 220	Yang Han	yah015@ucsd.edu
A03	Th: 8-8:50am	SOLIS 110	Michelle Chiew	mhchiew@ucsd.edu
A04	Th: 9-9:50am	SOLIS 110	Chloe Welch	cwelch@ucsd.edu

A05	Th: 10-10:50am	SOLIS 110	Chloe Welch	cwelch@ucsd.edu
A06	M: 5-5:50pm	WLH 2208	Waverley Achacoso	wachacoso@ucsd.edu
A07	Th: 7-7:50pm	CENTR 217A	Gayathri Donepudi	gdonepudi@ucsd.edu
A08	Th: 8-8:50pm	CENTR 217A	Zuhair Kapadia	z1kapadia@ucsd.edu

Technology Requirements:

You will need an iClicker (any version will work) for this course. A physical clicker can be purchased from the campus bookstore if you do not have access to one. The mobile app will also be enabled for this course if you choose to use that. Once you have an iClicker, be sure to register the device on the course canvas page. It is your responsibility to make sure you can answer clicker questions each lecture day. There will be no make-up assignments due to a forgotten/not working clicker.

You will need access to a device that can access a web browser (e.g. Chrome, Safari, Firefox). This will be to access Canvas, podcast lectures, and submitting section assignments. Any connected device can typically accomplish this (smart phone, tablet, laptop).

You are allowed to bring your laptops, tablets, and phones into lecture - however it is not necessary. In class assignments are turned in physically. Section activities, on the other hand, are based around assignments turned in electronically, so it is recommended that you bring a laptop to your section if you are able. If you are unable to bring one, we will be working in small groups during section meetings and so can work with others (however you will ultimately be responsible for turning in your own assignment).

There are resources on campus available if you have tech needs. Please visit: https://libraries.ucsd.edu/computing-and-technology/computers-and-laptop-stations/index.html

Tentative Schedule (Quiz days will not change)

Each week we will have in-person lectures on Tuesday and Thursday starting at 5:00pm and ending at 6:20pm. Clicker questions and in-class assignments will assume that you are familiar with the textbook readings before coming to class that day.

Week	Date	Day	Topic	Readings
1	10 Jan.	1	Introduction to Genetics/ Probability	Ch. 1
1	12 Jan.	2	Mitosis and Meiosis	Ch. 2

2	17 Jan.	3	Mendel's Model	Ch. 3
2	19 Jan.	4	Modifications to Mendel's Model	Ch. 4
3	24 Jan.	5	Sex Chromosomes	Ch. 5
3	26 Jan.	6	Chromosome Variation and Mutation	Ch. 6
4	31 Jan.	7	Linkage	Ch. 7
4	2 Feb.	8	**Quiz 1**	
4	3 Feb.	NA	*Deadline to drop without a "W" grade*	
5	7 Feb.	9	DNA Structure & DNA Replication	Ch. 9-11
5	9 Feb.	10	Transcription	Ch. 12
6	14 Feb.	11	Translation	Ch. 13
6	16 Feb.	12	**Quiz 2**	
6	17 Feb.	NA	*Deadline to drop with a "W" grade*	
7	21 Feb.	13	Mutation	Ch. 14
7	23 Feb.	14	Regulation in Bacteria	Ch. 15
8	28 Feb.	15	Regulation in Eukaryotes and Cancer I	Ch. 16 & 19
8	2 Mar.	16	Regulation in Eukaryotes and Cancer II	Ch. 16 & 19
9	7 Mar.	17	**Quiz 3**	
9	9 Mar.	18	Quantitative Genetics	Ch. 20
10	14 Mar.	19	Population Genetics	Ch. 21
10	16 Mar.	20	-Omics	Ch. 18
11	23 Mar.	NA	**Final Exam 7:00pm – 10:00pm**	

Assignments

Your learning in this course will be assessed in four primary ways: section assignments, tests, in-class problem sets, and clicker questions. They are described below. You will also notice, for each type of assignment, your lowest grade is dropped.

Section Assignments:

These weekly assignments test the depth of your understanding on a topic. Each week (starting in week 2) during section you will work in small groups to complete an assignment based on the prior week's material. For this reason, there is no Section Activity in week 1. Section in week 9 was also cancelled. Section assignments can be worked on in section together, but each student will need to submit their own assignment (in their own words) via Canvas by the end of the week (Sunday Midnight). The lowest grade from these assignments will be dropped.

Assignment	Due Date	Points per Assignment	Total Points
Section Activity	Each Sunday starting in Week 2.	10	90
TOTAL	-	10/ week	90/80 (lowest dropped)

Tests:

Because of the group nature of this course (all of the problem sets can be discussed in one way or another) we need multiple opportunities to determine how well your individual learning is progressing. We will have 4 tests in this course. Three during the course and a Final. The three tests given during the course will cover the most recent material lectured on and are not cumulative. Everything is fair game on the final. The lowest grade of these 4 tests will be dropped.

Assignment	Due Date	Points per Assignment	Total Points
Quizzes	2/2, 2/16, 3/7	20	60
Final Exam	3/23 (7-10 pm)	20	20
TOTAL	-	20/ test	80/60 (lowest dropped)

In-Class Problem Sets:

Each week you will work in small groups during one of the lectures to answer scenario-based problems from that week's lecture material. The lowest grade from these assignments will be dropped.

Assignment	Due Date	Points per Assignment	Total Points
In-class problem set	Once each week	5	50
TOTAL	-	5/ week	50/45 (lowest dropped)

Clickers:

This course uses iClickers for rapid polling of students. Many of the questions asked in class will not be graded for a correct answer, only for participation. Occasionally a clicker

question will be graded for a correct answer and this will be made clear to the class at the time of the poll. Be sure to register your clicker! See the iClicker Registration section of the Canvas board. Your two lowest clicker points will be dropped.

Assignment	Due Date	Points per Assignment	Total Points
iClicker Questions	In class	1/lecture. Not including quiz days	17
TOTAL	-	2/ week	17/15 (2 classes can be missed)

Summary:

Points assigned in this course: 237

Points required to earn a 100% grade: 200

You can miss (or do poorly) on the following assignments and still receive a full grade in this course. The lowest score on the following assignments will be dropped:

    1 Section Activity
    1 In-class Activity
    1 Test
    2 lectures (iClickers)

Late Assignments:

Section assignments must be submitted on time to be eligible for full credit. 1% will be deducted from your score for every hour the assignment is late. Email Dr. Mueller if you need to turn in an assignment late. Late assignments over two weeks late will not be considered unless a prior arrangement with Dr. Mueller has been agreed upon.

Missing Assignments:

Things come up! That's fine. This class is designed with plenty of flexibility built in. In each of the above assignment categories lowest scores will be dropped essentially allowing an entire week to be missed without a grade penalty. If an emergency comes up that the above flexibility cannot accommodate, e-mail me as soon as you are able, so a backup plan can be initiated. Too many students wait too long to work out a plan with me and their grades suffer for it! Please come talk to me if you must prioritize life over coursework.

Grading Scale:

Letter	% Range	Point Cutoff
A+	100 – 97	194
A	96 - 93	186
A-	92 - 90	180
B+	89 – 87	174
B	86 – 83	166
B-	82 – 80	160
C+	79 – 77	154
C	76 – 73	146
C-	72 – 70	140
D	69 -60	120
F	Below 60	119.9 or fewer

Campus Health

Keeping our campus healthy takes all of us. You are expected to follow the campus safety requirements and pursue personal protection practices to protect yourself and the others around you.

Contact the instructional team if you are impacted by health concerns including COVID-19

Campus Policies

- **UC San Diego Principles of Community**
- **UC San Diego Policy on Integrity of Scholarship**
- **Religious Accommodation**
- **Nondiscrimination and Harassment**
- **UC San Diego Student Conduct Code**

Diversity and equity statement

It is important for us to make sure that how we teach this course and how we accommodate different student needs reflects the differences of race, ability, sexual orientation, age, and gender identity that enrich our classroom experience and campus. If you have any concerns related to diversity and equity in the course, please contact the instructor.

If you find yourself in an uncomfortable situation, ask for help. The university is committed to upholding policies regarding nondiscrimination, sexual violence, and sexual harassment.

Learning and Academic Support

Ask a Librarian: Library Support
Chat or make an appointment with a librarian to focus on your research needs

Course Reserves, Connecting from Off-Campus and Research Support
Find supplemental course materials

First Gen Student Success Coaching Program
Peer mentor program that provides students with information, resources, and support in meeting their goals

Office of Academic Support & Instructional Services (OASIS)
Intellectual and personal development support

Writing Hub Services in the Teaching + Learning Commons
One-on-one online writing tutoring and workshops on key writing topics

Supplemental Instruction
Peer-assisted study sessions through the Academic Achievement Hub to improve success in historically challenging courses

Tutoring – Content
Drop-in and online tutoring through the Academic Achievement Hub

Tutoring – Learning Strategies
Address learning challenges with a metacognitive approach

Support for Well-being and Inclusion

Basic Needs at UCSD
Any student who has difficulty accessing sufficient food to eat every day, or who lacks a safe and stable place to live is encouraged to contact: foodpantry@.ucsd.edu
basicneeds@ucsd.edu
(858) 246-2632

Counseling and Psychological Services
Confidential counseling and consultations for psychiatric service and mental health programming

Triton Concern Line
Report students of concern: (858) 246-1111

Office for Students with Disabilities (OSD)
Supports students with disabilities and accessibility across campus

Community and Resource Centers
Office of Equity, Diversity, and Inclusion *As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus*

diversity@ucsd.edu

(858) 822-3542

Get Involved
Student organizations, clubs, service opportunities, and many other ways to connect with others on campus

Undocumented Student Services
Programs and services are designed to help students overcome obstacles that arise from their immigration status and support them through personal and academic excellence