Course Syllabus

Winter 2023 BICD 100 — Genetics

Instructor: Jessica Rusert (she/her)

E-mail: jrusert@ucsd.edu (Include BICD 100 in subject; use only for personal questions)

Office hours: Fridays at 11am-12pm in Zoom

Scheduled Lecture Time: 11am-12:20pm Tu/Th Solis 107

**This is LONG with the goal of addressing any questions you may have. You are responsible for knowing these details, so please READ IT! * If you have additional questions after reading sections here, please post them in Piazza.*

I reserve the right to make changes to this syllabus as needed throughout the course. You will be notified of any changes,* ***though exams are fixed. Be sure to allow and check Canvas notifications *regularly so you get these in a timely manner.***

Overview of the Curriculum

This course aims to develop concepts of genetics as they apply to how information is stored, utilized, and inherited in life. Fundamental concepts include gene and chromosome structure, genetic aberrations, phenotype, chromosome segregation and recombination, inheritance, how genetic information coded in the DNA is used, simple and complex traits, and the evolution of genes and genomes. We will learn these concepts by studying their roles in biological systems. Then we will apply our understanding of these concepts to explain and predict a wide range of biological and real-life phenomena including human health, biodiversity, and agriculture. Interspersed in the course will be topics from current genetic research such as GWAS studies and cancer genomics.

Overall Philosophy

The teaching team and I know that this pandemic has affected many students in a variety of ways. **We will do our best to support you**! As the quarter progresses, the IAs and I will use your feedback to adjust aspects of the course when possible to improve your experience. The teaching

team is doing our best to prepare and plan a course that encompasses clarity, simplicity, and compassion for students' varying situations.

L**earning genetics can be inherently empowering** as it is arguably the basis for all living organisms and the variety we find among these organisms. As such, this coursework should not simply be a means to an end like a certain grade or stepping stone to the next class. The knowledge you learn should also allow you to **understand situations that might arise in your life** and aid you in **helping the people in your family and community thrive**. In practice, what that means is that we will teach you genetics concepts relating to people, other organisms, and populations, but then will we ask you to **go beyond memorization** to **deeply understand** the material and **apply knowledge to new examples.** For example, when we talk about a complex trait like cancer, we might use the inheritance of risk for skin cancer and somatic mutations that contribute to its development as an example in a problem set, but ask you to apply the concepts to liver cancer on an exam. That way, if someone in your life develops breast cancer, you will ideally already have had practice integrating the fundamental concepts you learned BICD 100 with information about a particular cancer, which will hopefully allow you to better help them understand their complex disease, treatment options, and the potential risk of this cancer to others in their family.

I would like you to think of this class as a **community of geneticists where we are all helping each other grow. We have a rich diversity of students and IAs. Engaging with these individuals in groups, office hours, lectures, and in study groups can capitalize on this diversity can enhance your learning in ways you might not even realize.** Therefore, I have tried to build in places where you will be invited to engage with your fellow students, meet your fellow students, and set up study groups. Some of you might find such engagement difficult at first and sometimes this engagement is optional. However, it becomes easier with practice so I encourage you to make the most of these opportunities! Also, if you go on to have a career that involves biology in some way, for example as a researcher, healthcare professional, medical science liaison, or drug developer, you will spend a great deal of your time communicating science. By interacting with others verbally and composing your ideas in writing, you can practice the communication and leadership skills you will need in such careers.

Contacting Me and Piazza Discussion Boards for Questions:

Emails directed to me, Dr. Rusert, should **focus on personal, tech (but not tech support), or course related issues ONLY** (a course related issue could be different deadlines listed in the syllabus versus that on the assignment, you cannot access the homework, etc.). Please ensure that all e-mails include **BICD 100** in the subject line because I teach other classes and if the matter

requires immediate attention include URGENT in the subject line as well. I will respond to emails usually within 24 hours. I regularly check my email during normal business hours when I'm not teaching or holding office hours, but on weekends you may not hear back from me until Monday.

For ALL OTHER questions we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, IAs, and myself. I encourage you to answer each other's questions or contribute to a conversation! Rather than emailing content or logistics questions to someone from the teaching team, including your IA, please post your questions on Piazza – which you can even do anonymously – by clicking the **Piazza** link in the menu to the left in our Canvas webpage.

The teaching team will be monitoring posts roughly 1x a day and fellow students can answer your questions, which ensures you get a response faster than if you email one individual directly AND everyone can see the answer. If you have any problems or feedback for the developers, email **team@piazza.com (mailto:team@piazza.com)**

For logistics questions, please ensure you have carefully reviewed the syllabus and searched the posts in Piazza before making a new post.

Lecture Details:

Attending lecture in-person will be associated with 5% of your total grade to encourage you to engage with the material and ask questions in real time. **iClickers will be used during lectures to track participation and provide me with real-time feedback on how the class as a whole is understanding a concept starting Tuesday April 10th.** iClickers can be bought at the bookstore or online - possibly used ones for a discount. Register your iClicker at the link on the right. **You can miss up to 5 of all in person lectures and still receive full credit starting Tuesday 4/11 of week 2, answering 50% of the questions posted during lecture, to get 100% credit.** "In-person" lectures is stated as sometimes my kids get sick and I may have to record a lecture or do it live from home. Participation points will not be included that day if this happens. Announcements will always be made as soon as possible if I cannot teach in person.

Using iClickers is to encourage you to make full use of the opportunities to engage with the material, interact and learn with your fellow classmates, and ask questions in real time. Lectures will also be podcast and appear in the Media Gallery automatically roughly 2hours after the class is over with automatic titles/dates. **NOTE:** If there is a tech error in a podcast, such as audio that goes out during a lecture, **I will not re-record the material.** If you must miss a class you can get notes from another student and/or speak with someone from the teaching team to go over the material missed.

Lecture slides will be posted in each week's module (on the Home page) prior to class. Sometimes this will be the day or night before, sometimes this will be right before class.

iClickers will be used during lectures to track participation and provide me with real-time feedback on how the class as a whole is understanding a concept starting Tuesday April 10th. iClickers can be bought at the bookstore or online - possibly used ones for a discount. **Register your iClicker at the link on the right.**

Lectures and Assignments

- **Reading Reflections** are meant to introduce you to vocabulary and concepts for the upcoming week.

- "**Exit Tickets**" or **Surveys** are a way for you to give anonymous feedback on what is working/not working in the class and particularly in your discussion section. Most of these should be completed after you attend your discussion section each week, but the **PreClass/Week 1 Survey** can be completed prior to your section.

Homework will generally cover material from **T/Th lectures of that week**, though it will be posted ~Wednesday each week before all of the material on the HW has been covered. They will be due Sunday night so you are prepared for the discussion section worksheet that next week. No HW is due the weeks of exams so the next HW maybe a bit longer as it will cover 3 lectures.

Attend your enrolled **Discussion Section**, ***participate***, and complete the **activity** provided for credit. You will hand in your completed worksheet at the end of section.

The **Syllabus Quiz** will help ensure you know the requirements of the course

Lectures and Assignments BICD100 Spring2023 for students.docx
(https://canvas.ucsd.edu/courses/44835/files/9415268?wrap=1) ↓
(https://canvas.ucsd.edu/courses/44835/files/9415268/download?download_frd=1)

Week	Lecture Date	Lecture	Assignments Released (Due Date by 11:59pm; bolded due that week, regular due the following week)
1	Apr. 4	Introduction to the course and genetics background (L1)	****Week 1 Reading reflection – DMD gene (11am Thursday 4/6)**** **Section Participation (no submission, IAs will give credit for participation)** Pre-Class/Week 1 Course Survey (Sun 4/9) Syllabus & Study Techniques Quiz (Sun 4/9) Homework 1 DMD activity (Sun 4/9) Reading Reflection Week 2 – (Mon 4/10)
	Apr. 6	Gene structure (L2)	
2	Apr. 11	Genotype-phenotype & mutation (L3)	**Section Activity & Participation** Week 2 Exit Ticket Survey (Sunday 4/16) Homework 2 – F8/F9, dominance (Sun 4/16) Reading Reflection Week 3- (Mon 4/17)
	Apr. 13	Alleles (genotype), dominance, GOF/LOF, pedigrees(L4)	
3	Apr. 18	Phenotypic outcomes, factors that influence phenotype; Mitosis(L5)	**Section Activity & Participation** Homework 3 – Mitosis, meiosis (Sun 4/23) Reading Reflection Week 4 (Mon 4/24)
	Apr. 20	Mitosis (NDJ and somatic mosaicism), Meiosis, Non-Disjunction MI vs MII (L6)	
4	Apr. 25	Patterns of Simple (Mendelian) inheritance (multiple genes)(L7)	**Section Activity & Participation** Week 4 Exit Ticket Survey (Sunday 4/30) *Reading Reflection Week 5 (***DUE Wed 5/3***)*
	Apr. 27	sex chromosomes & inheritance (L8)	
5	May 2	**Midterm 1 (covers up through lecture 6 & HW3)**	**Section Activity & Participation** Homework 4 – Mendelian inheritance, sex chromosomes, Epistasis (Sun 5/7) Reading Reflection Week 6 (Mon 5/8)
	May 4	Epistasis & Complementation (L9)	

6	May 9	Epistasis & Complementation (L10)	**Section Activity & Participation** Week 6 Exit Ticket Survey (Sun 5/14) Homework 5 – Epistasis & linkage (Sun 5/14) Reading Reflection Week 7 (Mon 5/15)
	May 11	Homologous recombination, Linkage, & Molecular markers (L11)	
7	May 16	Linkage, & Molecular markers, & GWAS (L12)	**Section Activity & Participation** Homework 6 – Linkage, GWAS (Sun 5/21) Reading Reflection Week 8 (Mon 5/22)
	May 18	GWAS (L13)	
8	May 23	Somatic mutations and Cancer (L14)	**Section Activity & Participation** Reading Reflection Week 9 (***DUE Wed. 5/31***)*
	May 25	Somatic mutations and Cancer (L15)	
9	May 30	**Midterm 2 (covers up through lecture 13 & HW6)**	**Section Activity & Participation** No Reading Reflection Homework 7 –Somatic mutations & cancer, ancestral genomes (DUE Wed. 6/7)
	June 1	Ancestral genomes, genome evolution I L16)	
10	June 6	Ancestral genomes, genome evolution II (L17)	**Section Activity & Participation** CAPEs for extra credit If class reaches 88%! (deadline Saturday 8am 6/10) Week 10 Course Survey (Sun 6/11)
	June 8	Quantitative traits (L18)	
Final Exam Cumulative in person	**Tuesday June 13th at 11:30am-2:30pm**		

Instructional Assistants (IAs) Sections, Office Hours (OH), and emails - fully updated soon:

For pictures of the IAs please go to the **IA information: sections & OH times and locations (& photos) (https://canvas.ucsd.edu/courses/44835/pages/ia-information-sections-and-oh-times-and-locations-and-photos?wrap=1) :**

You will get extra credit the first time you attend ANY office hours during the weeks 2-5 of class to encourage you to seek help and engage with the material, though you can also discuss careers, study techniques, other classes, etc. with anyone on the teaching team. We have a great group of IAs so please don't be afraid to go to any of them for advice or help! . OH start week 2.

Section	Location	Day & Time	IA	Office Hour	OH Location	
D01	PCYNH 240	Mon 12-12:50 pm	Willard Ford	Mon 4-5PM	Zoom	wwfor (mailto:ww
D02	PCYNH 240	Mon 1-1:50PM	Kianna Rojas	Thurs 6-7PM	Zoom (https://ucsd.zoom.us/j/96571875375)	kmroja (mailto:km
D03	PCYNH 240	Wed 10-10:50 am	Kristal Lam	Wed 11:00am-12:00pm	In front of the Student Services Center	kslam (mailto:ks
D04	PCYNH 240	Wed 11-11:50 am	Hannah Xu	Mon 2:30 - 3:30 pm	Zoom	qix00 (mailto:qi
D05	PCYNH 240	Tues 5-5:00 pm	Lara Leitz	Thurs 2:15-3:15 pm	RIMAC Annex *Glider Lounge* (located above Peet's Coffee)	lleitz (mailto:ll
D06	PCYHN 240	Tues 6-6:50pm	Ellen Wrightsman	Tue 8:00-9:00am	Leichtag Biomedical Research Building first floor	ewrightsı (mailto:ewrig
D07	PCYNH 240	Fri 8:00a-8:50a	May Wu	Fri 1:00-2:00pm	Zoom (https://ucsd.zoom.us/j/93180573241)	yuw13 (mailto:yu
D08	PCYNH 240	Fri 9:00a-9:50a	May Wu	Fri 1:00-2:00pm	Zoom (https://ucsd.zoom.us/j/93180573241)	yuw13 (mailto:yu

Discussion Sections:

Discussion sections start Week 1 and will be used to practice applying your knowledge on specific topics and help you understand how to answer free response questions on exams. Active engagement with the material in each section is critical to developing your understanding of the

lecture material. **A portion of your grade will be based on active participation in section, including sharing out your ideas on the problems you work on**.

You will work in small groups on activities that will be handed in for credit at the end of each section. This is also a great way to connect with fellow students and form study groups.

You are required to attend/participate in your enrolled discussion time to ensure equal student:IA ratio among the sections, which also prevents participation and grading from becoming too complicated for the IAs. **However, if you need to attend a different section one week due to a scheduling conflict, please contact your IA and the IA for the discussion you plan to attend so they can ensure you get appropriate credit.** If you are ever not given credit when you should have, please reach out to your IA as I have no way of confirming your attendance. Your lowest 2 scores will be dropped to accommodate situations that arise where you cannot attend section. PLEASE USE DROPPED SCORES WISELY and save them for unforeseen circumstances as exceptions will not be made to the 2 drop policy.

Weekly Reading Guides, Optional Textbook, and Reading Reflections:

A **Weekly Reading Guide** will be posted each week to *introduce* you to topics for the following week, which will then help you apply the concepts in class. Readings will be suggested from free online resources and sometimes pages in the ***optional*** Klug et al 10th edition textbook (see below), though you can use any genetics textbook to supplement much of the material. **Use the guide to decide what you need to read to prepare for the upcoming week based on your current knowledge**. The questions are meant to ***guide*** your reading and some students find it helpful to fill these out. The point is, all of the suggested reading are not required but meant to prepare you for lectures and further supplement your learning after lectures **as needed**.

Some of the links in the Reading Guide seem to not work for everyone, even though I check them each quarter. This frustrates me and will likely frustrate some of you, though I do not want to make you buy a textbook! If you find that a link does not work for you try these suggestions:

1) go to the website itself and search the topic

2) post on Piazza that a link isn't working for you (fellow students are often quick to offer help or alternative websites - thank you!)

3) Look at other links in the Reading Guide for that topic instead, if offered

4) Find another resource yourself from these options:

1. Nature Scitable Essential Genetics e-book: **http://www.nature.com/scitable/ebooks/essentials-of-genetics-8/contents(Links to an external site.) (http://www.nature.com/scitable/ebooks/essentials-of-genetics-8/contents)**
2. Nature Scitable, search for topics and definitions: **http://www.nature.com/scitable(Links to an external site.) (http://www.nature.com/scitable)**
3. Search the NCBI Bookshelf for specific topics: **http://www.ncbi.nlm.nih.gov/books/(Links to an external site.) (http://www.ncbi.nlm.nih.gov/books/)**
4. Free Biology Textbook, contains some basic genetics: **https://openstaxcollege.org/textbooks/biology(Links to an external site.) (https://openstaxcollege.org/textbooks/biology)**

5) Check out the **Helpful Animations and Videos (https://canvas.ucsd.edu/courses/44835/pages/helpful-animations-and-videos)** which include lectures on Youtube

6) email me that a link isn't working for you (though if you post it in Piazza others can benefit from alternatives offered AND I will see it there.)

Klug et al. Essentials of Genetics 10th edition is **optional** if you prefer reading from one source and is available through the bookstore, but it is ***not required***. However, **SOME WEEKS the textbook is less helpful** and does not cover the material we will cover in class well, especially week 1. Other weeks it does a fantastic job covering the concepts. Use the online resources as needed. There is also a “Study Area” if you purchase the “Mastering” level of the Klug. et al. text that includes practice questions, vocabulary study tools, video tutorials, and more. If you want additional practice questions and help this quarter for much of the course's content, get the Mastering level.

Reading Guide Reflections will be due by 11:59 Mondays before the lectures each week, and by **Wednesdays** on exam weeks, with the exception of **Reading Guide Reflection for Week 1 (%24CANVAS_OBJECT_REFERENCE%24/assignments/ge4a643ce41f88717e26b065b11dc0d9c?wrap=1)** which is due by 11am on 4/6 for Thursday's lecture.

Being able to communicate your ideas well through writing is a vital skill that takes practice. **Reading Reflections in particular, are meant to help you synthesize information into your own written explanations and descriptions. Practice doing this will help you when writing short answers on exam in this and future science courses.** You should plan to spend at least 30minutes on the Reading Reflections each week. These are graded on effort and completeness **but will be checked for plagiarism, including the use of an AI chatbot. Plagiarism or AI chatbot generated answers will receive a severe reduction in points or a 0. I care more**

about the answers being authentic and in your own words, as this supports your learning, than how polished or professional they sound.

Homework:

Weekly homework will be posted by Wednesday and is due by the following Sunday at 11:59pm in Gradescope. **It will often cover T/Th lectures that week even though it is posted on Wednesday.**

You only need to complete 80% of the homework throughout the quarter in total for 100% credit. This can be either by not submitting one of the assignments (1 out of 7), by not completing all of the questions during any given week, or sometimes by completing all questions late and submitting them within 24hours of the due date. For instance, some weeks you can complete all of the questions and other weeks you can complete say 60% of the questions and you could still end up with 100% credit at the end of the quarter. It is your responsibility to keep track of this if you worry about earning full credit but are not completing at least 80% of the questions each week. At the end of the quarter I will adjust the scale based on the % you have such that 80% will become 100%. This means you will have MORE questions given to you than you are required to complete.

There will be no homework due the weeks of midterms. Homework due the week after the exam may be slightly longer as it will cover ~3 lectures instead of 2. Homework is graded on completeness and effort. Answers will be posted ~Tuesday mornings so students can still submit HW late on Mondays for a 2pt reduction out of 10 possible points.

I encourage you to work together in study groups to discuss the questions as they are meant to be higher level application. Working with others often helps you better understand the material *even if you are the one explaining the answer*. When working in groups, try not to make the mistake of simply accepting another student's answer and thinking you understand it so writing down what they tell you (or worse, copying what's on a shared google doc as that requires no thinking at all).

A quote from a student from a previous quarter to help you think about the work you will do in this class and how it will help you if you put in the effort: "I found that when I had the hardest time doing homework was when I ended up learning the most. Similarly in discussion section activities, the times when these were the hardest was when it challenged us to further analyze the information we were given. These served as great study guides/practice for the exams."

Exams:

Midterms 1 & 2 will be held in-person during lecture time. The dates below will not be changed, so plan your quarter accordingly. NO MAKE-UP MIDTERMS will be given (***unless you have an OSD exemption***).

Midterm 1 - Tuesday May 2nd covers up through Lecture 3 and HW#3

Midterm 2 - Tuesday May 30th, covers up through Lecture 13 and HW#6 (cumulative though will favor new material)

Final Exam - Tuesday June 13th at 11:30am, cumulative; roughly 40% new material (Lectures 14-18 and HW#7) and 60% old material, though this is a *rough* estimate. EVERYONE MUST TAKE THE FINAL EXAM.

Exams will be a mix of multiple choice, select all, and short answer. **You will be allowed ONE U.S. letter size page of paper, front and back with HANDWRITTEN notes during the exam (not written on an ipad and printed)**. You may not include online pictures or lecture slides, however you can draw pictures or tables of anything you want. **You can reuse your notes page from Mt1 on Mt2 for instance, but you are limited to ONE page only during each exam,** even if that means you have to rewrite your notes from Mt1 for Mt2 or the final exam to make them fit on one piece of paper. Failure to follow these guidelines will result in a 2-15% reduction in points on an exam, at my discretion.

Drafts of the exams will be given to the IAs to take as if they were a student. Adjustments will be made to wording, so the questions and clear, and length is doable within the lecture time (80min). You will have roughly double the time it takes the IAs to complete the exam unless you have an OSD extension.

Exams grades will not be curved, but instead normalized to the top 5% of the class if the exam was challenging for everyone (students scores in the class go up to 90% only for instance, instead of 100%).

There are 2 grading scheme options shown below in "Grades" (in yellow versus green). The yellow include both Midterms and the final exam. The green allows you to drop or miss one midterm. Whichever gives you the highest final grade will be used to determine you grade. This can only be done in Excel, not in Canvas, at the end of the quarter. If you wish to determine your grade before that, you will have to calculate your own potential grades using the “What if” option in Grades or by doing the algebra yourself.

By building in the flexibility of the below grading scheme, **if you must miss one of the midterms FOR ANY REASON the weight will be shifted to the other midterm and the final.** You do not

need to email me to let me know why you cannot take a midterm and **NO MAKE UPs will be offered**. You will get a 0 on a missed midterm, but this will be dropped when calculating your final grade in favor of the green grading scheme.

For extenuating circumstances that interfere with your ability to take the FINAL EXAM (i.e. hospitalization), please contact me to discuss your circumstances and options.

Course Surveys:

There will be a handful of surveys throughout the quarter, roughly every other week, that allow the teaching team to gather helpful information about you and feedback on the course. These are worth 1% of your grade, will generally take less than 5 minutes, and are due by Sunday at 11:59pm when your HW is due. Surveys are often called an "Exit Ticket." The course surveys are designed to help us understand what is going well for you and what is not working, such as in your discussion sections.

The teaching team is very open to constructive feedback as we want to foster a positive learning environment and ensure the course is effective in helping you learn, especially given this pandemic-induced, return to in-person instruction adjustment and the reduced learning that has been observed throughout the pandemic for some students. Understand however, that sometimes the most successful, evidence-based teaching strategies are not necessarily those that all students enjoy from the start AND students have wildly different opinions on course style and preferences. Learning new material is seldom easy and challenging tasks are not always initially enjoyable. My number one priority is your learning, but I do hope you have some fun or feel some fulfillment as you grow along the way!

Extra Credit

I have created a non-traditional and, dare I say, *fun* (intriguing, helpful, influential....?) extra credit assignment that is optional, to be completed by May 4th at 11:59pm or anytime before then (you can do it now!). Please see the assignment details here: **Happiness Lab Podcast Extra Credit Option (%24CANVAS_OBJECT_REFERENCE%24/assignments/gc95fa7839f85510ef7e2540dff07c110)**

Grades:

There will be no curve at the end of the term. Consequently, you are not in competition with anyone for a grade, so work together! The activities and assignments from which you will earn

your grade are designed to **promote your learning and the behaviors that tend to lead to learning**.

Grades will be based on your percentage in the course and assigned a grade by Canvas based on the grading scheme below. There will not be opportunities to receive extra credit or bump up your grade beyond what is offered during the course. This would not be ethical or fair to your fellow students. Do the work, read through **"How to Study for This Course," "Learn How to Study Using Retrieval Practice," and "Creating Study Guides,"** set aside **study time,** and commit to **finding effective** and **efficient study methods** that work for you to learn the material. Please talk with me if you have concerns as soon as possible.

Course Surveys	1% Drop the lowest 1 score of 5
Syllabus Quiz	.5%
Lecture Participation 50% of	5% 85% of lectures (can miss 3 lectures), questions each lecture
Discussion Section Activities & Participation	8% Drop the lowest 2 scores of 10
Reading Reflections	7.5% Drop lowest 2 scores of 9
Homework 100%)	8% (average of 80% completion needed for
Midterms 1, 2, & Final Exam	22% Mt1, 22% Mt2, & the Final at 26%
OR	
Midterms 1, 2, & Final Exam 36%	34% Mt1 or Mt2 (drop one Mt), and the Final at
Total	100%

97-100% A+

92-96% A

88-91% A-

85-87% B+

81-84% B

77-80% B-

73-76% C+

68-72% C

65-67% C-

58-64% D

<58 F

Regrades:

If you feel an exam question is INCORRECTLY graded based on the rubric, a regrade request can be submitted through Gradescope by the deadline stated in the announcement after exam grades are posted. The exact protocol will be explained in more detail after the first exam scores are posted. I reserve the right to make changes to the regrades policy if I find that students are abusing/mis-using the option, such as arguing for points that are not part of the rubric. I encourage you to **discuss your questions about the exam answers during any office hours a**fter all students have taken the exam.

Late Work Policy:

Assignments in this class can be submitted within 24 hours of the due date for 20% reduction in total credit possible. Beyond 24hrs you will no longer be able to submit your work. The lowest score (or 2) from each assignment type will be dropped (see "grades" above). Therefore, if you miss a submission entirely, for any reason, this will be used as your dropped assignment (which Canvas will do automatically) and it will show up as a 0. No additional extensions or dropped scores will be offered to individuals as I must be fair and equitable to all students in the course. For extenuating circumstances that interfere with your ability to participate in this course, even with these allowances, please reach out to me to discuss your options.

Content Tutoring (https://aah.ucsd.edu/content-tutoring/index.html) (click this link)

provides tutoring support for students in various STEM courses (including BICD100) from peer tutors who are ready to help! Services are available in-person and online via **appointment**

(https://redrock.ucsd.edu/) . Students are welcome to bring any questions or concepts you would like to review. We'd appreciate it if you encourage your students to come early and often!. This Winter quarter we are open:

- In-Person (Geisel Library 1st Floor West)
    - Monday – Thursday 12 PM - 8 PM
    - Friday 12 PM - 5 PM
- Online (Zoom)
    - Monday - Friday, Sunday; 5 PM - 9 PM

Learning Strategies (https://aah.ucsd.edu/learning-strategies/index.html) (click this link)

is a program designed to support students in study skills and non-course specific academic support. Students have access to a Canvas site with study strategy and exam prep resources, one-on-one appointments, and workshops. Some topics our peer learning strategists can support you with include note-taking, time management, and general study strategies.

Disability Access:

Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students are required to present their AFA letters to Faculty] and to the OSD Liaison in the department in advance so that accommodations may be arranged. Generally, OSD emails me a letter with the provided accommodations and you will be cc'd on that email. That is sufficient for me to be informed, however, accommodations for extended time on in-person exams will be coordinated by you with the OSD liaison in the biology department.

Contact the OSD for further information: **https://osd.ucsd.edu/ (https://osd.ucsd.edu/)**

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Academic Integrity:

Academic integrity means having the courage to uphold honesty, fairness, responsibility, respect & trust even when difficult. Creating work with integrity is important because otherwise we are misrepresenting our knowledge and abilities and the University is falsely certifying our accomplishments. And when this happens, the UCSD degree loses its value and we've all wasted our time and talents! Students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity.

Title IX Compliance:

The University recognizes the inherent dignity of all individuals and promotes respect for all people. Sexual misconduct, physical and/or psychological abuse will NOT be tolerated. If you have been the victim of sexual misconduct, physical and/or psychological abuse, we encourage you to report this matter promptly. As a member of this community, I am interested in promoting a safe and healthy environment, and should I learn of any sexual misconduct, physical and/or psychological abuse, I must report the matter to the Title IX Coordinator. If you want to speak confidentially you may contact the Counseling Center.

The Office for the Prevention of Harassment & Discrimination (OPHD) provides assistance to students, faculty, and staff regarding reports of bias, harassment, and discrimination. OPHD is the UC San Diego Title IX office. Title IX of the Education Amendments of 1972 is the federal law that

prohibits sex discrimination in educational institutions that are recipients of federal funds. Students have the right to an educational environment that is free from harassment and discrimination.

Students have options for reporting incidents of sexual violence and sexual harassment. Sexual violence includes sexual assault, dating violence, domestic violence, and stalking. Information about reporting options may be obtained at OPHD at (858) 534-8298, ophd@ucsd.edu or http://ophd.ucsd.edu. Students may receive confidential assistance at CARE at the Sexual Assault Resource Center at (858) 534-5793, sarc@ucsd.edu or http://care.ucsd.edu or Counseling and Psychological Services (CAPS) at (858) 534-3755 or http://caps.ucsd.edu.

Students may feel more comfortable discussing their particular concern with a trusted employee. This may be a student affairs staff member, a department Chair, a faculty member or other University official. These individuals have an obligation to report incidents of sexual violence and sexual harassment to OPHD. This does not necessarily mean that a formal complaint will be filed. If you find yourself in an uncomfortable situation, ask for help.

CLASS STATEMENT OF VALUES

Below are the values I expect each student in this class, IAs, and myself to uphold throughout the quarter. Acting according to these values ensure we will foster a collaborative and supportive learning environment.

VALUES	**Upholding this value means that STUDENTS will…**	**Upholding this value means that the INSTRUCTIONAL TEAM will…**
Courage – "the mastery of fear, to do what is right"	- Take action when we see something that undermines the values below - Make honest ethical choices even when at personal cost	- Take action when we see something that undermines the below values - make honest ethical choices even when at personal cost
Fairness "Justice cannot be for one side alone, but must be for both.	- Contribute fully and equally to collaborative work, so that we are not freeloading off of others on our teams	- Create fair assignments and exams and grade them in a fair and timely manner

~Eleanor Roosevelt”	- Not seek unfair advantage over fellow students in the course	- Treat all students and collaborative teams equally
Honesty “Honesty is the first chapter in the book of wisdom. ~Thomas Jefferson” “When honesty is established as a value it allows for and encourages the development of trust”	- Advance the quest for truth and knowledge through intellectual and personal honesty in learning, teaching, research, and service. - Communicate openly without using deception, including citing appropriate sources	- Give you honest feedback on your demonstration of knowledge and abilities on assignments and exams - Communicate openly and honestly about the expectations and standards of the course through the syllabus and in relation to assignments and exams
Respect “Without feelings of respect, what is there to distinguish men from beasts? ~Confucius”	- Speak openly with one another while respecting diverse viewpoints and perspectives - Provide sufficient space for others to voice their ideas	- Respect students’ perspectives even while we challenge you to think more deeply and critically - Help facilitate respectful exchange of ideas
Responsibility “Every member of an academic community – each student, faculty member, and administrator – is responsible for	- Complete assignments on time and in full preparation for class - Show up to class on time and be mentally and physically present	- Give you timely feedback on your assignments and exams - Show up to class on time and be mentally and physically present

safeguarding the integrity of its scholarship, teaching and research."	- Participate fully and contribute to team learning and activities	- Create relevant assessments and class activities
Trustworthiness "Trust enables us to collaborate, to share information, and to circulate new ideas freely, without fear that our work will be stolen, our careers stunted, or our reputations diminished."	- Not engage in personal affairs while on class time - Be open and transparent about what we are doing in class - Not distribute course materials to others in an unauthorized fashion	- Be available to all students when we say we will be - Follow through on our promises - Not modify the expectations or standards without communicating with everyone in the course

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Course Summary:

Date	Details	Due
Thu Apr 6, 2023	**Reading Guide Reflection for Week 1** (https://canvas.ucsd.edu/courses/44835/assignments/620578)	due by 11am
Fri Apr 7, 2023	**Week 1 Discussion participation** (https://canvas.ucsd.edu/courses/44835/assignments/620590)	due by 11:59pm
Sun Apr 9, 2023	**Pre-Class/Week 1 Course Survey** (https://canvas.ucsd.edu/courses/44835/assignments/620547)	due by 11:59pm

Date	Details	Due
	Syllabus and Studying Techniques Quiz (https://canvas.ucsd.edu/courses/44835/assignments/632274)	due by 11:59pm
	Homework #1 - DMD (https://canvas.ucsd.edu/courses/44835/assignments/620561)	due by 11:59pm
Mon Apr 10, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883894&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893141&include_contexts=course_44835)	4pm to 5pm
	Reading Guide Reflection for Week 2 (https://canvas.ucsd.edu/courses/44835/assignments/620579)	due by 11:59pm
Thu Apr 13, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893053&include_contexts=course_44835)	6pm to 7pm
Fri Apr 14, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893427&include_contexts=course_44835)	11am to 12pm
	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890163&include_contexts=course_44835)	1pm to 2pm
	Week 2 Discussion Activity & Participation (https://canvas.ucsd.edu/courses/44835/assignments/620591)	due by 11:59pm
	Week 1 Survey: Getting to Know You - #FinAid (https://canvas.ucsd.edu/courses/44835/assignments/642368)	due by 11:59pm
Sun Apr 16, 2023	Homework #2 gene structure, mutation, phenotype,	due by 11:59pm

Date	Details	Due
	and dominance (https://canvas.ucsd.edu/courses/44835/assignments/620562)	
	Week 2 Exit Ticket Survey (https://canvas.ucsd.edu/courses/44835/assignments/620556)	due by 11:59pm
Mon Apr 17, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883895&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893142&include_contexts=course_44835)	4pm to 5pm
	Reading Guide Reflection for Week 3 (https://canvas.ucsd.edu/courses/44835/assignments/620580)	due by 11:59pm
Thu Apr 20, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893054&include_contexts=course_44835)	6pm to 7pm
Fri Apr 21, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893428&include_contexts=course_44835)	11am to 12pm
	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890164&include_contexts=course_44835)	1pm to 2pm
	Week 3 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620593)	due by 11:59pm
Sun Apr 23, 2023	Homework #3 - Factors that Influence Phenotype; Mitosis, Meiosis, NDJ (https://canvas.ucsd.edu/courses/44835/assignments/620563)	due by 11:59pm
Mon Apr 24, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?	2:30pm to 3:30pm

Date	Details	Due
	event_id=883896&include_contexts=course_44835)	
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893143&include_contexts=course_44835)	4pm to 5pm
	Reading Guide Reflection for Week 4 (https://canvas.ucsd.edu/courses/44835/assignments/620582)	due by 11:59pm
Thu Apr 27, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893055&include_contexts=course_44835)	6pm to 7pm
Fri Apr 28, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893429&include_contexts=course_44835)	11am to 12pm
	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890165&include_contexts=course_44835)	1pm to 2pm
	Week 4 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620594)	due by 11:59pm
Sat Apr 29, 2023	review session for midterm 1 (https://canvas.ucsd.edu/calendar?event_id=900332&include_contexts=course_44835)	2pm to 3:30pm
Sun Apr 30, 2023	Week 4 Exit Ticket Survey (https://canvas.ucsd.edu/courses/44835/assignments/620552)	due by 11:59pm
Mon May 1, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883897&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?	4pm to 5pm

Date	Details	Due
	event_id=893144&include_contexts=course_44835)	
Tue May 2, 2023	Midterm 1 (https://canvas.ucsd.edu/courses/44835/assignments/620569)	due by 11pm
Wed May 3, 2023	Reading Guide Reflection for Week 5 (https://canvas.ucsd.edu/courses/44835/assignments/620583)	due by 11:59pm
Thu May 4, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893056&include_contexts=course_44835)	6pm to 7pm
Fri May 5, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893430&include_contexts=course_44835)	11am to 12pm
	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890166&include_contexts=course_44835)	1pm to 2pm
	Extra Credit for Office Hours Attendance (https://canvas.ucsd.edu/courses/44835/assignments/620558)	due by 11:59pm
	Week 5 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620595)	due by 11:59pm
Sun May 7, 2023	Homework #4 Inheritance; Sex Chromosomes; Epistasis & Complementation (https://canvas.ucsd.edu/courses/44835/assignments/620564)	due by 11:59pm
Mon May 8, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883898&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893145&include_contexts=course_44835)	4pm to 5pm

Date	Details	Due
	Reading Guide Reflection for Week 6 (https://canvas.ucsd.edu/courses/44835/assignments/620585)	due by 11:59pm
Thu May 11, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893057&include_contexts=course_44835)	6pm to 7pm
	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893431&include_contexts=course_44835)	11am to 12pm
Fri May 12, 2023	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890167&include_contexts=course_44835)	1pm to 2pm
	Week 6 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620596)	due by 11:59pm
	Homework #5: Epistasis & Complementation; Linkage (https://canvas.ucsd.edu/courses/44835/assignments/620565)	due by 11:59pm
Sun May 14, 2023	Week 6 Exit Ticket Survey and Midterm feedback (https://canvas.ucsd.edu/courses/44835/assignments/620553)	due by 11:59pm
	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883899&include_contexts=course_44835)	2:30pm to 3:30pm
Mon May 15, 2023	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893146&include_contexts=course_44835)	4pm to 5pm
	Reading Guide Reflection for Week 7 (https://canvas.ucsd.edu/courses/44835/assignments/620586)	due by 11:59pm

Date	Details	Due
Thu May 18, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893058&include_contexts=course_44835)	6pm to 7pm
Fri May 19, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893432&include_contexts=course_44835)	11am to 12pm
	May Wu Office Hour (https://canvas.ucsd.edu/calendar?event_id=890168&include_contexts=course_44835)	1pm to 2pm
	Week 7 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620598)	due by 11:59pm
Sun May 21, 2023	Homework #6: Linkage, Molecular Markers, GWAS (https://canvas.ucsd.edu/courses/44835/assignments/620566)	due by 11:59pm
Mon May 22, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883900&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893147&include_contexts=course_44835)	4pm to 5pm
	Reading Guide Reflection for Week 8 (https://canvas.ucsd.edu/courses/44835/assignments/620587)	due by 11:59pm
Thu May 25, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893059&include_contexts=course_44835)	6pm to 7pm
Fri May 26, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893433&include_contexts=course_44835)	11am to 12pm

Date	Details	Due
	Week 8 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620599)	due by 11:59pm
Mon May 29, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883901&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893148&include_contexts=course_44835)	4pm to 5pm
Tue May 30, 2023	Midterm 2 (https://canvas.ucsd.edu/courses/44835/assignments/620570)	due by 11am
Wed May 31, 2023	Reading Guide Reflection for Week 9 (https://canvas.ucsd.edu/courses/44835/assignments/620589)	due by 11:59pm
Thu Jun 1, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893060&include_contexts=course_44835)	6pm to 7pm
Fri Jun 2, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893434&include_contexts=course_44835)	11am to 12pm
	Week 9 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/620600)	due by 11:59pm
Sun Jun 4, 2023	Happiness Lab Podcast Extra Credit Option (https://canvas.ucsd.edu/courses/44835/assignments/628570)	due by 11:59pm
	Homework #7 Somatic Mutations & Cancer; Genes & Genome evolution (https://canvas.ucsd.edu/courses/44835/assignments/620567)	due by 11:59pm

Date	Details	Due
Mon Jun 5, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883902&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893149&include_contexts=course_44835)	4pm to 5pm
Thu Jun 8, 2023	Kianna's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893061&include_contexts=course_44835)	6pm to 7pm
Fri Jun 9, 2023	Dr. Rusert's Office Hours (https://canvas.ucsd.edu/calendar?event_id=893435&include_contexts=course_44835)	11am to 12pm
	Week 10 Discussion activity & participation (https://canvas.ucsd.edu/courses/44835/assignments/633630)	due by 11:59pm
Sun Jun 11, 2023	Week 10 Course Feedback (https://canvas.ucsd.edu/courses/44835/assignments/620545)	due by 11:59pm
Mon Jun 12, 2023	Hannah's Office Hours (https://canvas.ucsd.edu/calendar?event_id=883903&include_contexts=course_44835)	2:30pm to 3:30pm
	Willard Ford Office Hours (https://canvas.ucsd.edu/calendar?event_id=893150&include_contexts=course_44835)	4pm to 5pm
Tue Jun 13, 2023	Final Exam (https://canvas.ucsd.edu/courses/44835/assignments/620559)	due by 11:30am
	MT 22, 22, Final 26 final class score (https://canvas.ucsd.edu/courses/44835/assignments/620572)	
	MT 34 Final 36 final class score	

Date	Details	Due
	(https://canvas.ucsd.edu/courses/44835/assignments/620573)	
	Session 3 4-11-23 (https://canvas.ucsd.edu/courses/44835/assignments/645630)	
	Session 4 4-13-23 (https://canvas.ucsd.edu/courses/44835/assignments/645629)	
	Session 5 4-18-23 (https://canvas.ucsd.edu/courses/44835/assignments/645628)	
	Session 6 4-20-23 (https://canvas.ucsd.edu/courses/44835/assignments/647597)	
	Session 7 4-25-23 (https://canvas.ucsd.edu/courses/44835/assignments/647596)	
	Session 8 4-27-23 (https://canvas.ucsd.edu/courses/44835/assignments/647595)	