

BICD 100 Genetics A00
Fall 2022
General Course Information

Course description and goals: an introduction to the principles of heredity emphasizing diploid eukaryotic organisms. Through this course, students will:

- develop an understanding of the nature of genetic variation and how it leads to phenotypic variation
- develop skills in the interpretation and analysis of data from genetic experiments
- learn about ways the genetics is used as tool to study biological processes and solve “real world” problems

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Lectures: MW 6:00-7:20pm CENTR 101. In these sessions we will review, augment, and apply material introduced through assigned readings. Occasionally there will be standard lectures, on topics not covered in readings. Attendance is not taken or required, but there will be points awarded for responses to clicker questions that can only be earned in class beginning in week 3 (see below). During lecture, a Zoom session will available *for chat only* (no video or audio), which you can join from Canvas. This is a place to ask questions and receive answers in real time (you are of course welcome to ask questions verbally too). Video+audio recordings of MW class sessions will available shortly after class at podcast.ucsd.edu.

iClickers: Questions will be asked in class, with the expectation that you will respond using an iClicker**. This will give you the chance to apply new knowledge and receive feedback on your learning right away. Beginning in week 3 (Oct. 10th), you can earn points toward your final grade for your responses (0.5 pts for incorrect and 1 pt for correct answers to each question). New iClickers are available at the UCSD Bookstore and used ones from many sources (ask if you want to know more). All vintages of iClicker are fine. To allow for occasional absences (including those due to COVID or COVID exposure), forgotten clickers, dead batteries and other technical problems, your lowest five daily iClicker point totals will be dropped - please do not request accommodations for these types of problems unless there is an unforeseen problem beyond your control, i.e. the type of thing that would warrant an excused exam. Your iClicker must be registered to receive credit for your responses: on Canvas, click on “iClicker Registration” in the list of blue items on the left; enter the requested info. Even if you have registered your iClicker before, please check here to make sure your current device is registered; update the info if needed. Important note for those who have ever shared an iClicker with another student: if two students in this class have the same iClicker currently registered to them, neither will get credit for their responses, i.e. each student in this class must have a unique iClicker registration to receive credit.

**if you want to use the iClicker app on your phone instead of a standard iClicker, you can but please see the instructor after class or in office hours for information about doing this. Bottom line: it's not as good an alternative as it sounds. It almost certainly won't save you money unless this is your last quarter at UCSD, and you'll be using it "at your own risk" e.g. if your response isn't received because either you or the instructor didn't have an internet connection at the moment the polling period closed.

Textbook: P. Meneely et al., Genetics: Genes, Genomes and Evolution (first and only edition). This book is a vital resource, because class time will concentrate on applying and augmenting information in the assigned readings rather than repeating it. Some assigned homework problems will also be in this book. You will need to use the book to do well in this class! Free access to a digital version of this book is available for the first two weeks of class to all enrolled and waitlisted students – access by clicking on "Redshelf Digital Materials" in the Redshelf module on Canvas. If you are still enrolled in the class as of Oct. 8th at 11:59pm and have not "opted out" by then, your UCSD student account will be charged \$53.32 for access for the remainder of the qtr. For instructions on accessing the textbook and opting out via Canvas: <https://solve.redshelf.com/hc/en-us/articles/360007684453-How-to-Access-through-Canvas>. More details on opting out here: <https://solve.redshelf.com/hc/en-us/articles/360013142634-How-to-Opt-Out>. You will also receive email from donotreply@redshelf.com with information about the program and how to opt out. If you are opting out with the intention of using another copy of the book instead, be sure it is the US edition (ISBN 978-0-19-871255-8 for paperback; 978-0-19-879536-0 for hardback) because all reading and homework problem assignments are based on this edition; I don't have access to any other edition (e.g. a European edition with a different ISBN) that would allow me to translate assignments to other editions. For any questions about billing for Redshelf access, contact the UCSD Bookstore at textbooks@ucsd.edu. For technical issues related to Redshelf access go to <https://solve.redshelf.com/hc/en-us>.

Reading quizzes: To fully benefit from class sessions focused on developing problem solving and data analysis skills, students will need to do assigned readings in advance. Reading assignments are specified in the Course Calendar. To provide guidance on what you should be gleaning from reading assignments, and reward your reading efforts, you will take a quiz on each reading assignment, available on Canvas in the weekly modules no later than 5pm Saturday - 5pm Monday of every week of instruction except midterm exam weeks. Every student gets two attempts of 1 hr each, to give you time to hunt for info needed to answer the questions if you want to take that approach. The higher of your two scores is the one you keep.

Discussion sections/section quizzes: All students are enrolled in a discussion section that meets once/week on Thursday and is led by an Instructional Assistant. These sessions will build your problem solving and data analysis skills, providing further support for exam success. Beginning week 1 (Sept. 29) up to 5 points/week can be earned via active participation in the discussion section you are enrolled in. In lieu of section attendance, you will have the opportunity most weeks (see course calendar for exceptions) to earn these weekly participation points by taking an online quiz instead, available on Canvas from 5pm on applicable Thursdays through 5pm the following day. Section quiz questions will closely resemble discussion section problems. If you earned your weekly participation points in discussion section, you do not need to take the quiz, but may still take it and use the points earned to boost your lowest exam score to equal your highest exam score (these points will be held "in the bank" for you until after all exam scores are determined and final point tallies are made). If you enrolled in the class after Thurs. Sept. 29, contact Prof. Smith regarding makeup opportunities for the missed sections.

Office hours: times and places listed on Canvas, with join links available for virtual sessions in “Office Hours Info” document in the General Course Information module. If you cannot make it at any of these times and would like to set up a different time, please email the instructor or your IA. Office hours are an excellent opportunity to get your questions answered and find support for solving any of the problems and questions presented in any part of this class. You don’t need to have a question to benefit from participation – you can just join and listen what questions other students have and the responses to those. All office hrs are open to all students regardless of who is hosting the OH.

Homework: A homework assignment will be posted most weeks (see exceptions in course calendar) in the appropriate weekly module on Canvas. Completed homework will be submitted via Gradescope and will be due Sundays at 5pm. Keys will be posted shortly after the submission deadline. The homework gives you further opportunity to develop the problem solving and data analysis skills you will need for success on the exams. If you need help answering a question or solving a problem on the homework, utilize office hours! You may use input from IAs, the instructor, and other students to complete your homework, but the work submitted must be your own, e.g. your wording on short answer questions should not duplicate that of other students’ or previously published resources. *Exam problems will be very similar to homework problems, so mastery of homework is vital for success on exams!*

Exams: there will be 3 exams of equal weight, each covering 1/3 of the course material. Midterm I will be open note/open book/open device and administered as a Canvas quiz during classtime Mon. Oct. 17th. Autograding of this Canvas quiz will give you valuable early feedback on how you are doing in this class, together with homework and quiz scores received by the drop/grading option change deadline Oct. 21. Midterm 2 and the final exam will be in person on Mon. Nov. 7th and Mon. Dec. 5th, respectively. These will be closed book/note/device exams however you can bring a one page (front and back) “cheat sheet” of notes to use during the exam. Exams are not cumulative however many elements of this course build on earlier ones, so an understanding of earlier material will be important for later exams even though it is written to directly test only the material taught in the defined time window above. All exam dates/times/locations also shown on the course calendar as well.

Accommodations for illness and other emergencies: The grading scheme in this class has been constructed with COVID in mind: you can drop one score of some assignment types (see below), and miss many class sessions while still reaching the clicker point ceiling. Save these freebies incase you get COVID or another illness because that is what they are for. That said, if a medical or personal issue that is serious and beyond your control interferes with your ability to keep up in the class and take all 3 exams, please contact the instructor as soon as possible (definitely before an affected exam, unless you are incapacitated) so we can discuss your situation and come up with a solution together.

Grading: your final grade will be determined by what percentage of the total available points (500) you earn. Points are available as follows:

- 40 points (8%) for iClicker responses (~5 points/day beginning wk 3 with your lowest 5 scores dropped)
- 35 points (7%) for reading quizzes (8 quizzes of 5 points each, with your lowest score dropped)
- 40 points (8%) for homework (8 problem sets x 5 pts each)
- 40 points (8%) for discussion sections or Thurs quizzes (9 wks beginning Sept. 29 x 5 pts w-one free skip)
- 115 points (23%) for midterm I
- 115 points (23%) for midterm II
- 115 points (23% for final exam)
- 500 points total

(Grading cont.’d next page)

These guidelines will be used to assign grades:

>450 points (90%) A (A-, A or A+)

>400 points (80%) B (B-, B or B+)

≥325 points (65%) C (C-, C or C+)

>250 points (50%) D

If necessary, these cutoffs will be adjusted *downward* so that at least 65% of students receive an A or a B, but they will not be adjusted upward for any reason.

Academic integrity:

The aim of your instructor and IAs is to foster all students' ability to excel with integrity, and we expect that the work on all credit-bearing assignments will be your own. Policies are outlined above for each exam regarding what aids are authorized. You may not give or receive help from an unauthorized source (e.g. another student) on quizzes or exams. If Prof. Smith has a good reason to think you have used unauthorized aids on a credit-bearing assignment, a report will be filed with the UCSD Academic Integrity Office (AIO). A student confirmed to have engaged in academic dishonesty will have grade penalty, in addition to the disciplinary actions determined as appropriate by the AIO.