General Course Information

BICD 100R* Genetics Summer Session II 2023

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see Course Calendar for topics, assignments, activities, and exams

*General note: this is a fully remote class - the "R" in BICD 100R stands for remote. There are no in-person activities for this class, but there are a few activities that need to be done at the scheduled times (see below): discussion sections twice a week, and 3 exams.

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

Instructor: Professor Laurie Smith **lgsmith@ucsd.edu (mailto:lgsmith@ucsd.edu)**

Available throughout the week in the class lounge** and for one-on-one appointments by email request

Instructional Assistants:

Yufei Deng **y9deng@ucsd.edu (mailto:y9deng@ucsd.edu)**

Colin Mach **cmach@ucsd.edu (mailto:cmach@ucsd.edu)**

Siddharth Gaywala **sgaywala@ucsd.edu (mailto:sgaywala@ucsd.edu)**

Celina Shen **ceshen@ucsd.edu (mailto:ceshen@ucsd.edu)**

All are available in the class lounge**

Lectures: Lectures are asynchronous, i.e. recorded and posted on Canvas for you to watch on your own schedule. They will be posted in weekly modules well in advance of due dates for assignments on the corresponding topic. Lecture videos have quiz questions embedded to give you a chance to develop and test your understanding of lecture material as you go along (with further opportunities coming later in homework and discussion section). The quiz embedded in each video is worth 1.5-4 pts reflecting variation in the number of questions. You get two attempts at each quiz and the higher score is the one you keep – please use second attempt opportunities wisely to solidify your understanding of genetics concepts. The deadline for each video

quiz is shown in the Course Calendar and precedes the corresponding homework assignment deadline by 24hrs. After a video quiz submission deadline, the same video without quiz questions will be posted and remain available throughout the course.

Readings: There is no assigned textbook or required reading for this course. Lectures are intended to convey all the content knowledge needed for success on homework and exams. Incase you want more input, or learn better from readings than lectures, links to free online readings are provided in the Course Calendar for each group of lecture videos. These do not cover all the ground in each lecture and are not intended as a substitute for lecture videos but can serve as a helpful supplement. Nearly all topics in this course are also presented in any college level genetics textbook (e.g. Klug, Cummings et al. *Essentials of Genetics*, Pearson, 10th or other recent edition) so you may want to use one, but think of this too as an optional supplement to lecture videos.

Codon Learning:

This class will use a courseware platform called Codon Learning offering practice in applying concepts and developing skills that will be needed for success using research-backed strategies. Most weeks there will be two CL homework assignments (in week 1, there will be a review quiz and one homework assignment instead). You will also be assigned a CL "study path" for each exam to facilitate your exam prep process.

To get started using Codon Learning (CL):

- Enter the CL system via the Canvas module "Codon Learning" – this is where you will find all CL assignments. Start with the "pre-class assignment" titled Genetics Review Quiz
- At the end of that first assignment, you will find 3 questions with info and embedded videos introducing you to Codon Learning.
- Throughout the course, tech help is available from Codon from their **support page** ⏎ **(https://urldefense.com/v3/__https:/codonlearning.freshdesk.com/support/solutions/69000414929__;!!Mih3wA!C nNnnJ08ColMg3xsxXaNWZiNZw_P9v37J-m8TE9KKg6HD1IssogtJUB0b4pFGeRXJDJDMhbyG1TXRXVq$)** by **creating a support ticket** ⏎ **(https://urldefense.com/v3/__https:/codonlearning.freshdesk.com/support/tickets/new__;!!Mih3wA!CnNnnJ08C olMg3xsxXaNWZiNZw_P9v37J-m8TE9KKg6HD1IssogtJUB0b4pFGeRXJDJDMhbyG6pl9b_W$)** or emailing **support@codonlearning.com (mailto:support@codonlearning.com)** . Genetics questions should be directed to your IA or instructor though!
- Registered students will have **free access to CL via Canvas until August 15**. Access thereafter requires payment. There are two payment options (also explained **here** ⏎ **(https://codonlearning.freshdesk.com/support/solutions/articles/69000737986-how-to-pay-for-a-course)**):

1. Purchase access w-a credit or debit card for $35 within the CL system (enter via Codon Learning module on Canvas; go to Course Access tab; choose credit card payment option).
2. Purchase an access code from the UCSD Bookstore ($46.75, including Bookstore surcharge). This allows you to use financial aid, if you have funds in your student account that can be used for textbook purchases. To do this, start **here** ⏎ **(https://www.bkstr.com/ucsdtextstore/course-materials-results? shopBy=course&divisionDisplayName=&departmentDisplayName=BICD&courseDisplayName=100R&sectionDi**

(this link is for section A01 but I don't think it matters since the required course materials are the same for all sections, i.e. Codon Learning). After you put CL in your bag and go to checkout, you will hopefully see a way to use your UCSD student account to pay – I can't provide complete instructions here since I can't log in as a student to get to the checkout page. Let me know if you hit a roadblock and need help. My UCSD Bookstore contact says "once the purchase is finalized and fulfilled, an access code will be emailed to the student in a separate message from the bookstore". Then go to the Course Access tab within the Codon Learning system (access via CL module in Canvas), and choose the "I have an access code" option.

Discussion sections/problems:

Discussion sections meet 2X/week (join via Zoom within Canvas) and provide an opportunity to further build your skills solving problems, analyzing and interpreting information, and responding to questions requiring different types of answers from those on Codon Learning, which you will also have on exams. Your solutions/answers to the discussion section questions will be submitted (for credit) via Canvas and due at noon each Friday, except week 5 when the due date is Wednesday. *Points will be awarded for attendance and participation in the discussion section you are enrolled in (and only that section).* Everyone gets one "free" absence (no point penalty for missing section once, without need to notify your IA or give a reason). Beyond the first section day Tues. Aug. 8, discussion sections will not be recorded for later viewing.

**Class Lounge:

Making connections with each other, your instructor, and your IA is harder in a fully online class like this, but still important. To find help and connection, please take advantage of the "class lounge" hosted on Zoom many hours every week (hours and host names shown on the Course Calendar and accessed via the Zoom link within Canvas). Here, you can ask questions about course material, share your concerns, vent your frustrations, find study partners, get study tips, etc. You do not need to have a genetics question, or any question, to join the lounge. We can talk about whatever is on your mind, or you can just listen to what others bring up. All students are welcome in the lounge whenever it's open, regardless of who is hosting.

Exams:

There will be 3 exams, all administered as Canvas quizzes with a variety of question formats. Some questions will require writing out a solution or making a drawing by hand with pen/pencil and paper, taking a picture of that, and submitting the image, so be prepared for that! A practice test containing the range of question types you will see on the real exam, and giving you a chance to practice uploading photos of hand-written answers, will be available in the appropriate exam module. You will have two hours to complete each exam as follows:

1. Midterm I Sat. Aug. 19 10am-noon PDT (covering material from weeks 1&2)
2. Midterm II Sat. Sept. 2 10am-noon PDT (covering material from weeks 3&4)
3. Final Exam Fri. Sept. 8 noon-2pm PDT (this is within the longer period set by the Registrar for the final exam in this class). This exam will consist of two parts: one hour covering week 5 material only, and one hour for a

comprehensive assessment covering the entire class where you will get full credit for a score of 75% or higher. Will be explained further as the time draws near.

Important points about exams:

- Exams will not be re-scheduled except in cases where a serious, unforeseeable problem arises. Contact the instructor ASAP if you have a situation like this
- A Zoom session will be scheduled during the exam time period where you can go to ask questions (i.e. request clarification of exam questions)
- See Academic Integrity section below regarding authorized vs. unauthorized aids during exams

Grading: your final grade will be determined by the percentage of total points earned. Points are available as follows:

50 points (12.5%) for video quizzes (1.5-4 pts/video)

60 points (15%) for Codon Learning assignments (12 assignments; 4-6 points each)

50 points (12.5%) for discussion section participation and problem sets

95 points (~24%) for midterm I

95 points (~24%) for midterm II

50 points (12.5%) for final exam (both parts)

400 points total

These guidelines will be used to assign grades:

>360 points (90%) A (A-, A or A+)

>320 points (80%) B (B-, B or B+)

≥260 points (65%) C (C-, C or C+)

≥200 points (50%) D

<200 points (50%) F

If necessary, these cutoffs will be adjusted downward so that at least 60% 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, but you are free to discuss homework and video quiz problems with fellow students, IAs and the instructor prior to submission. Exams are open book, open note, and open device - you are free to consult videos, slides, readings and notes during the exam, but you may not give

or receive help on exams from another person or a chatbot. Please respect these standards of academic integrity, without which grades and a UCSD degree are not meaningful. If Prof. Smith has a good reason to think you have **received or given** assistance on an exam, she will file a report with the UCSD Academic Integrity Office (AIO). A student confirmed to have engaged in academic dishonesty will receive an F as their final grade, in addition to the disciplinary actions determined as appropriate by the AIO.