

PCB3063 (Online) Genetics

Syllabus

Contact Information:

INSTRUCTOR:

Dr. Scott Taylor

Email: sm.taylor@ufl.edu

Office Hours

Tuesdays 1-4pm, by appointment and via Zoom. Automatically schedule a Zoom appointment through [Calendly at this link \(Links to an external site.\)](#).

TEACHING ASSISTANTS:

Anna Mohr

Email: Canvas Inbox

Office Hours: TBA

Credit Hours: 4 credits

For questions about course content, your grade, or other personal issues, use the Canvas mail tool. Expect a response within 48 hours.

Course Description

This course will survey chromosome structure and replication, genetic linkage and mapping, regulation of gene expression, epigenetics, genetic mutation, genetics of cancer, and the principles of genetic engineering. Applications of bioinformatics and genetics to modern biological problems are discussed. This is a 100% online course.

Course Objectives

By the end of this course, you will be able to:

1. Describe the historical foundations for the field and discoveries of genetics.
2. Use core knowledge of genetics to critically analyze scientific research literature, and in popular culture and the public discourse.
3. Make connections between research in genetics and quantitative analysis in other natural and social science coursework.
4. Synthesize core knowledge of genetics with current and emerging research in the biological and social sciences.

Course Requirements

Required Textbook

1. Klug, WS, MR Cummings, CA Spencer, MA Palladino, and D Killian. 2019. *Concepts of Genetics*, 12th ed. Pearson, New York.
 1. Your textbook is provided as an electronic text, which is accessible via **Access Pearson** in the Canvas menu. Purchase text through UF All Access.
2. Additional course readings may be available on Canvas and via Course Reserves (ARES).

Prerequisites

To take this class, students must have taken BSC2011 and BSC2011L (or equivalent) with a minimum grade of C in addition to a general chemistry course.

Minimum Technology Requirements

The University of Florida expects students entering an online program to acquire computer hardware and software appropriate to his or her degree program. Most computers are capable of meeting the following general requirements. A student's computer configuration should include:

- Webcam
- Microphone
- Broadband connection to the Internet and related equipment (Cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review before the start of their program.

Minimum Technical Skills

To complete your tasks in this course, you will need a basic understanding of operating a computer and using word processing, presentation and video-conferencing software.

Materials/Supply Fees

There is no supply fee for this course.

Honorlock

Honorlock is an online proctoring service that allows students to take exams on-demand 24/7. There are no scheduling requirements or fees.

You will need a laptop or desktop computer with a webcam, a microphone, and a photo ID. The webcam and microphone can be either integrated or external USB devices.

Honorlock requires that you use the [Google Chrome](#) browser, and the Honorlock extension must be added to Chrome.

For further information, FAQs, and technical support, please visit the [Honorlock website \(Links to an external site.\)](#).

Zoom

Zoom is an easy-to-use video conferencing service available to all UF students, faculty, and staff that allows for meetings of up to 100 participants. You will need Zoom to interact in groups for some of the assignments in this course.

You can find resources and help using Zoom at the [UFIT Zoom website \(Links to an external site.\)](#).

COURSE POLICIES

Attendance, Make-Up Exams, and Assignments

Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found on the [UF Attendance Policies website \(Links to an external site.\)](#). Because most assignments in this class have a long due period of several days over which you can submit your assignment, late work will not be accepted without written documentation excusing you from more than half of the days that the assignment is available. You should submit your assignments *before* the posted final due date/time.

- Late quizzes and assignments will not be accepted without prior permission from the instructor, or documentation of illness
- No make-up **exams** will be given without prior permission from the instructor, or documentation of illness. Students that will be missing an exam due to a pre-arranged university-approved excused absence (sports, etc.) should let the instructor know a **minimum of two weeks in advance of the exam start date**. Your excused absence will need to cover the entire time that the exam is available, from the exam start date to the final

submission date/time.

- In case of illness or personal emergency during the exam window of availability, students must submit documentation to the Dean of Students office (P202 Peabody Hall, dsocares@dso.ufl.edu) and request an instructor notification to be sent. These notes must be received within five business days after the exam. Make up exams may not be multiple choice.

As this is an online class, you are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning. Do not wait until the final due date to complete your assignments - this will be at your own risk.

Grade Changes

It is important that you keep up with your grades and review your graded work. Any grade disputes or requests for re-grading, grade changes, etc. must be submitted **within 1 week of receiving the your score** for the assignment/quiz/etc. Requests or disputes submitted past this time period will not be addressed.

Behavior and Communication

Mature and respectful behavior is expected from all members of our class in all interactions with instructors, guest presenters, and other students.

To protect the First Amendment rights of students to speak in class and express their differing views, I ask that you limit your discourse during our class activities to respectful and welcoming tones, behaviors, language, and actions – and whenever possible, use published scientific data to bolster your opinions. I also expect you to be open to opinions, ideas, and scientific data that differ from your own views and beliefs, understanding that all fact-based opinions are welcome in the class and that differing perspectives are valued.

Your email and face-to-face discourse with your TAs and instructor will be polite, professional, and respectful at all times. Make sure your requests of our time are requests, and not demands.

If anyone in our class is abusive or harassing toward you, please bring this to my attention or to your TA's attention, and we will address it with the Student Conduct & Conflict Resolution Office (SCCRO), or you can contact the SCCRO directly. The SCCRO is there to help us, and to protect all students, including students accused of abusive behavior. Working with the SCCRO does not mean a student is necessarily "in trouble." It means that behaviors are disrupting student learning or content delivery, and are beyond my training, capability, or time and labor constraints to address.

You will be asked to self evaluate your work on group projects. Lying or exaggerating about your contribution to the project will be treated as academic dishonesty and may result in getting a zero on the the group assignment. If you do not do your fair share of the group work, you will receive a grade reduction.

Grading Policy

Assignments will be graded and feedback given within 7 days after the due date.

Assignment Groups Weight

Assignment	Weight	Drops*
Chapter Quizzes (through Pearson)	10%	2
PlayPosit Lecture Videos	15%	2
Large Assignments (2)	20%	0
Other Homework Assignments	12%	0
Class Discussions	3%	0
Exams	30%	0

Grading Scale

Grades will be assigned based on the following:

Grade	Percentage Range
A	100 - 93.0
A-	< 93.0 - 90.0
B+	< 90.0 - 87.0
B	< 87.0 - 83.0

Grade	Percentage Range
B-	< 83.0 - 80.0
C+	< 80.0 - 77.0
C	< 77.0 - 70.0
D+	< 70.0 - 67.0
D	< 67.0 - 63.0
D-	< 63.0 - 60.0
F	< 60.0 - 0.0

See the current [UF Grading Policies \(Links to an external site.\)](#) for more information.

UF Policies

University Policy on Accommodating Students with Disabilities

Students with disabilities requesting accommodations should first register with the [Disability Resource Center \(Links to an external site.\)](#) (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter that must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

University Policy on Academic Conduct

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and

integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: 'On my honor, I have neither given nor received unauthorized aid in doing this assignment.'

The [Student Honor Code and Student Conduct Code \(Links to an external site.\)](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Netiquette and Communication Courtesy

All class members are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

Students are encouraged to employ critical thinking and to rely on data and verifiable sources to interrogate all assigned readings and subject matter in this course as a way of determining whether they agree with their classmates and/or their instructor. **No lesson is intended to espouse, promote, advance, inculcate, or compel a particular feeling, perception, viewpoint or belief.**

GETTING HELP

Technical Difficulties

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- [helpdesk.ufl.edu \(Links to an external site.\)](https://helpdesk.ufl.edu)
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues should be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You should e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Health and Wellness

- **U Matter, We Care:** If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit the [U Matter We Care website](#) to refer or report a concern and a team member will reach out to the student in distress.
- **Counseling & Wellness Center:** Visit the [UF Counseling & Wellness Center website](#) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- **Student Health Care Center:** Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the [UF Student Health Care Center website](#).

- **University Police Department:** Visit the [UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room/Trauma Center:** For immediate medical care in Gainesville, call 352-733-0111, or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [UF Health Shands Emergency Room/Trauma Center website](#).

Academic and Student Support

- **Career Connections Center:** Career assistance and counseling services. 352-392-1601; [UF Career Connections Center website](#)[Links to an external site.](#).
- **Library Support:** Various ways to receive assistance with respect to using the libraries or finding resources. [UF George A. Smathers Libraries Ask-A-Librarian website](#)[Links to an external site.](#).
- **Teaching Center:** General study skills and tutoring. 352-392-2010; [UF Teaching Center website](#)[Links to an external site.](#).
- **Writing Studio:** Help brainstorming, formatting, and writing papers. 352-846-1138; [University Writing Program Writing Studio website](#)[Links to an external site.](#).

Course Evaluations

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at the [Providing Constructive Feedback website](#)[Links to an external site.](#). Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via the [GatorEvals website](#)[Links to an external site.](#). Summaries of course evaluation results are available to students at the [GatorEvals Public Results website](#)[Links to an external site.](#). More information about UF's course evaluation system can be found at the [GatorEvals - Faculty Evaluations website](#)[Links to an external site.](#).

Tips for Success

Taking a course online can be a lot of fun! Here are some tips that will help you get the most of this course while taking full advantage of the online format:

- Schedule "class times" for yourself. It is important to do the coursework on time each week. You will receive a reduction in points for work that is turned in late!
- Read ALL of the material contained on this site. There is a lot of helpful information that can save you time and help you meet the objectives of the course.
- Print out the Course Schedule located in the Course Syllabus and check things off as you go.
- Take full advantage of the online discussion boards. Ask for help or clarification of the material if you need it.

- Do not wait to ask questions! Waiting to ask a question might cause you to miss a due date.
- Do your work well before the due dates. Sometimes things happen. If your computer goes down when you are trying to submit an assignment, you'll need time to troubleshoot the problem.
- To be extra safe, back up your work to an external hard drive, thumb drive, or through a cloud service.

Privacy and Accessibility Policies

For information about the privacy policies of the tools used in this course, see the links below:

- Instructure (Canvas)
 - [Instructure Privacy Policy](#)
 - [Instructure Accessibility](#)
- Sonic Foundry (Mediasite Streaming Video Player)
 - [Sonic Foundry Privacy Policy](#)[Links to an external site.](#)
 - [Sonic Foundry Accessibility](#)[Links to an external site.](#)
- PlayPosit
 - [PlayPosit Privacy Policy](#)[Links to an external site.](#)
 - [PlayPosit Accessibility](#)[Links to an external site.](#)
- Zoom
 - [Zoom Privacy Policy](#)[Links to an external site.](#)
 - [Zoom Accessibility](#)[Links to an external site.](#)
- YouTube (Google)
 - [YouTube \(Google\) Privacy Policy](#)[Links to an external site.](#)
 - [YouTube \(Google\) Accessibility](#)[Links to an external site.](#)
- Microsoft
 - [Microsoft Privacy Policy](#)[Links to an external site.](#)
 - [Microsoft Accessibility](#)[Links to an external site.](#)
- Adobe
 - [Adobe Privacy Policy](#)[Links to an external site.](#)
 - [Adobe Accessibility](#)[Links to an external site.](#)
- Honorlock

- [Honorlock Privacy Policy](#)Links to an external site.
- [Honorlock Accessibility](#)Links to an external site.

Course Summary:

Date	Details	Due
	Assignment Orientation Video	due by 11:59pm
Fri Aug 30, 2024	Assignment Introduction to Mastering Genetics	due by 11:59pm
	Assignment Video: How to Use PlayPosit	due by 11:59pm
Thu Sep 5, 2024	Assignment Lecture: Cell Division and Gamete Formation	due by 11:59pm
	Assignment Chapter 1 Quiz	due by 11:59pm
Fri Sep 6, 2024	Assignment Chapter 2 Quiz	due by 11:59pm
	Assignment Lecture: Mendel II: Classical Genetics and Modern Refinements	due by 11:59pm
Thu Sep 12, 2024	Assignment Lecture: Mendel I: Classical Genetics and Modern Refinements	due by 11:59pm
	Assignment Chapter 3 Quiz	due by 11:59pm
Fri Sep 13, 2024	Assignment Chapter 4 Quiz	due by 11:59pm
Sun Sep 15, 2024	Assignment Punnett Squares Worksheet	due by 11:59pm

Date	Details	Due
Thu Sep 19, 2024	Assignment Lecture: Morgan I: Chromosomal Theory of Inheritance	due by 11:59pm
	Assignment Lecture: Morgan II: Sex Linkage	due by 11:59pm
Fri Sep 20, 2024	Assignment Chapter 5 Quiz	due by 11:59pm
	Assignment Chapter 7 Quiz	due by 11:59pm
Thu Sep 26, 2024	Assignment Lecture: Chromosomal Variations and Cytoplasmic Inheritance	due by 11:59pm
Fri Sep 27, 2024	Assignment Chapter 8 Quiz	due by 11:59pm
	Assignment Chapter 9 Quiz	due by 11:59pm
Fri Oct 4, 2024	Quiz PCB3063 Exam 1	due by 11:59pm
Sun Oct 6, 2024	Assignment DROPBOX for Written Paper Review Due October 6	due by 11:59pm
Thu Oct 10, 2024	Assignment Lecture: DNA Structure & Replication	due by 11:59pm
Fri Oct 11, 2024	Assignment Chapter 10 Quiz	due by 11:59pm
	Assignment Chapter 11 Quiz	due by 11:59pm

Date	Details	Due
Thu Oct 17, 2024	Assignment Lecture: Transcription	due by 11:59pm
	Assignment Lecture: Translation	due by 11:59pm
Fri Oct 18, 2024	Assignment Chapter 13 Quiz	due by 11:59pm
	Assignment Chapter 14 Quiz	due by 11:59pm
Thu Oct 24, 2024	Assignment Lecture: Gene Regulation I, Transcriptional Regulation	due by 11:59pm
Fri Oct 25, 2024	Assignment Chapter 15 Quiz	due by 11:59pm
	Assignment Chapter 16 Quiz	due by 11:59pm
Thu Oct 31, 2024	Assignment Lecture: Gene Regulation II, Posttranscriptional Regulation	due by 11:59pm
Fri Nov 1, 2024	Assignment Chapter 17 Quiz	due by 11:59pm
	Assignment Chapter 19 Quiz	due by 11:59pm
Fri Nov 8, 2024	Quiz PCB3063 Exam 2	due by 11:59pm
Sun Nov 10, 2024	Assignment DROPBOX for Gene and PCR Primer Assignment Due Nov. 10	due by 11:59pm

Date	Details	Due
Thu Nov 14, 2024	Assignment Lecture: Population Genetics	due by 11:59pm
Fri Nov 15, 2024	Assignment Chapter 26 Quiz	due by 11:59pm
Sun Nov 17, 2024	Assignment Assignment: Hardy-Weinberg Worksheet	due by 11:59pm
Thu Nov 21, 2024	Assignment Lecture: Molecular Techniques	due by 11:59pm
	Assignment Chapter 20 Quiz	due by 11:59pm
Fri Nov 22, 2024	Assignment Chapter 21 Quiz	due by 11:59pm
Thu Dec 5, 2024	Assignment Lecture: Cancer Genetics	due by 11:59pm
Fri Dec 6, 2024	Assignment Chapter 24 Quiz	due by 11:59pm
Wed Dec 11, 2024	Quiz PCB3063 Exam 3	due by 11:59pm