

PCB 3063, GENETICS, Spring 2022, SECTION 6130

Instructor: Dr. W. Brad Barbazuk, Department of Biology and the UF Genetics Institute
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Graduate TAs:

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Course website: UF e-learning

Text: Klug et al. 2018 Concepts of Genetics, 12th ed. Pearson, New York.

Schedule: T,R, periods 5 and 6 (11:45 - 1:40), TURL 011

Course Description:

PCB 3063 is an introduction to genetics course covering topics from Mendelian genetics to molecular biology and genomics. The class will provide students with a solid foundation in genetics either as a stand-alone course or as a prerequisite to other life sciences courses offered on campus. The course emphasis is on problem solving and conceptual synthesis. Course performance will be measured by three exams and a class project (details in class).

Course Objectives:

Upon completion of this course students will have built core knowledge of the field of genetics, including both mendelian and molecular genetics. Students will be able to use this core knowledge to analyze scientific literature and make connections within and between other life-sciences coursework.

Email Policy:

All email correspondence must be from your ufl.edu account, have your full name in the body of the email, and contain your course and section number in the subject line. Emails not meeting these requirements may not be recognized by my email filters, and thus may not be answered.

Grading:

25% Exam I; 25% Exam II; 25% Class Project and 25% Exam III (or cumulative). Practice problems will be assigned, but not graded.

Grades are based either on the average of 3 stand-alone exams (each examining 1/3 of the material) + project, **or** on the average of exam I, exam II, project and cumulative exam. If you write the cumulative exam and score on the cumulative exam is higher than your averaged score (Average of (Exam + Exam2 + Project + Cumulative)), the score on the cumulative exam can substitute for your average score for your course grade.

- Regrades must be requested in writing and be taken within 7 days of return of exam.

- **No make-up exams will be given without prior permission or documentation of illness.** In case of illness, a letter from your primary care provider is required. A personal matter requires a note from the Dean of Students (P202 Peabody Hall). **Make up exams may be given in an essay format.**

- Attendance in class is not required, but material covered only in lecture may appear on exams.

- Grading will be on a per cent scale.

93 – 100%	A
90 – 92.9%	A-
87 - 89.9%	B+
83 – 86.9%	B
80 – 82.9%	B-
77 – 79.9%	C+
73 – 76.9%	C
70 – 72.9%	C-
67 – 69.9%	D+
63 – 66.9%	D
60 – 62.9%	D-
<60	E

A curve **may** be applied at the instructor's discretion. The curve can only raise your grade, not decrease it. Please see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx> for UFs policy for assigning grade points.

Academic Honesty:

All students registered at the University of Florida have agreed to comply with the following statement:

“I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”

In addition, on all work submitted for credit the following pledge is either required or

implied:

“On my honor I have neither given nor received unauthorized aid in doing this assignment.”

If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at:

<http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

Accommodations for Students with Disabilities:

Students with disabilities who require accommodations should first seek assistance at the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). The Dean of Students Office of Disability Resources will work with the instructor to accommodate the student. Please see the University of Florida Disability Resources website for more information at: <http://www.dso.ufl.edu/drp/services/>.

Counseling Center:

Many students experience test anxiety and other stress related problems. “A Self Help Guide for Students” is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their website: <http://www.counsel.ufl.edu/>

Other Information:

Please do not request individual special treatment at the end of the semester; we do not adjust grades for individuals for any reason. Plan to do well on all exams from the beginning of the semester.

Special pre-exam review sessions:

TBA.

Covid-19 Statement:

In response to COVID-19, the following practices are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to further the health and safety of ourselves, our neighbors, and our loved ones.

- If you are not vaccinated, get vaccinated. Vaccines are readily available at no cost and have been demonstrated to be safe and effective against the COVID-19 virus. Visit this link for details on where to get your shot, including options that do not require an appointment: <https://coronavirus.ufhealth.org/vaccinations/vaccine-availability/>. Students who receive the first dose of the vaccine somewhere off-campus and/or outside of Gainesville can still receive their second dose on campus.
- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated. Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Hand sanitizing stations will be located in every classroom.
- If you sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus. UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the [UF Health Screen, Test & Protect website](#) for more information.
 - Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work.
 - If you are withheld from campus by the Department of Health through Screen, Test & Protect you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- Continue to regularly visit coronavirus.UFHealth.org and coronavirus.ufl.edu for up-to-date information about COVID-19 and vaccination.

In-Class Recording:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor. A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session. Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Syllabus is subject to change. While it is very likely that the posted exam and poster session dates will be adhered to, these should be considered tentative ONLY!! Date changes will be announced well in advance.

Genetics Syllabus, Fall 2019

Week	Topic	Read:	Suggested Problems	Subtopics
1 1/6	Transmission Genetics I	CH 2/3	TBA	Genetics Introduction; mitosis & meiosis; Mendelian genetics: Punnett squares & probability
2 1/11	Transmission Genetics I	CH 3	TBA	Mendelian genetics: Punnett squares & probability,
1/13	Transmission Genetics II	CH 4		Extensions of Mendelian genetics.
3 1/18	Transmission Genetics II	CH4/5	TBA	Extensions of Mendelian Genetics; Linkage mapping
1/20	Transmission Genetics II	CH 5		Linkage & mapping in eukaryotes
4 1/25	Transmission Genetics II	CH 6	TBA	Microbial Genetics
9/27	Transmission Genetics III	CH 7		Sex Determination
5 2/1 2/3	Chromosomes Exam I	CH 8	TBA	Chromosome Variation EXAM I 2/3
6 2/8	Molecular Genetics I	CH 10-12	TBA	DNA: the genetic material; replication & recombination; chromatin structure
2/10	Molecular Genetics I	CH 10-12		
7 2/15	Molecular Genetics II	CH 13	TBA	RNA/Transcription
2/17		CH 14		Translation
8 2/22	Molecular Genetics II	CH 15	TBA	DNA Repair
2/24	Molecular Genetics III	CH 16		Regulation of Gene expression: Prokaryotes
9 3/1 3/3	Molecular Genetics III/IV	CH 16/17 CH 17	TBA	Regulation of gene expression: eukaryotes

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Spring Break 03/07-03-11

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11				
3/15	Molecular Genetics V	CH 18		Post Transcriptional Regulation
3/17	Exam II			EXAM II 3/17
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11	Molecular Genetics V		TBA	
3/22		CH 19		Epigenetics
3/24		CH 20-22		Biotechnology/Genomics
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12			TBA	
3/29	Genomics	CH 20-22		Biotechnology/Genomics
3/31	Molecular Genetics VI	CH 23		Developmental Genetics
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13			TBA	
4/5	Molecular Genetics VII	CH 24		Cancer Genetics
4/7	Transmission Genetics IV	CH 25		Quantitative Genetics
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14			TBA	
4/12	Transmission Genetics IV	CH26		Pop. and Evol. genetics
4/14	Class Project Presentation	Group1		Class Project 4/14-4/19
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15			TBA	
4/19	Class Project Presentation	Group2		Class Project 4/14-4/19

FINAL EXAM Thursday April 28, 12:30-2:30PM