

**PCB 3063, GENETICS, Fall 2022,
SECTION 15698**

Instructor: Dr. Edward L. Braun, Department of Biology, 514 CRR
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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: M W, periods 3 and 4 (9:35 - 11:30), LIT 109

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 a different 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 UF's 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.

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 24 Aug	Transmission Genetics I	CH 2/3	TBA	Genetics Introduction; mitosis & meiosis; Mendelian genetics: Punnett squares & probability
2 29 Aug	Transmission Genetics I	CH 3	TBA	Mendelian genetics: Punnett squares & probability,
31 Aug	Transmission Genetics II	CH 4		Extensions of Mendelian genetics.
3 5 Sept	Labor day (no class)		TBA	
7 Sept	Transmission Genetics II	CH 4/5		Extensions of Mendelian Genetics; Linkage mapping
4 12 Sept	Transmission Genetics II	CH 6	TBA	Microbial Genetics
14 Sept	Transmission Genetics III	CH 7		Sex Determination
5 19 Sept	Chromosomes	CH 8	TBA	Chromosome Variation
21 Sept	Exam I			EXAM I
6 26 Sept*	Molecular Genetics I	CH 10-12	TBA	DNA: the genetic material; replication & recombination; chromatin structure
28 Sept	Molecular Genetics I	CH 10-12		
7 3 Oct	Molecular Genetics II	CH 13	TBA	RNA/Transcription
5 Oct*		CH 14		Translation
8 10 Oct	Molecular Genetics II	CH 15	TBA	DNA Repair
12 Oct	Molecular Genetics III	CH 16		Regulation of Gene expression: Prokaryotes
9 17 Oct	Molecular Genetics III/IV	CH 16/17	TBA	Regulation of gene

19 Oct		CH 17		
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10			TBA	
24 Oct	Molecular Genetics V	CH 18		Post Transcriptional Regulation
26 Oct	c			EXAM II
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11	Molecular Genetics V		TBA	
31 Oct		CH 19		Epigenetics
2 Nov		CH 20-22		Biotechnology/Genomics
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12			TBA	
7 Nov	Genomics	CH 20-22		Biotechnology/Genomics
9 Nov	Molecular Genetics VI	CH 23		Developmental Genetics
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13			TBA	
14 Nov	Molecular Genetics VII	CH 24		Cancer Genetics
16 Nov	Transmission Genetics IV	CH 25		Quantitative Genetics
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14			TBA	
21 Nov	Transmission Genetics IV	CH26		Pop. and Evol. genetics
23 Nov	Thanksgiving break			
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15				
28 Nov	Class Project Presentations	Group1-2		
30 Nov				
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16	Class Project Presentations	Group3		
5 Dec				
7 Dec	Exam III			
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