PCB 3063, GENETICS, FALL 2016, SECTION 4608

Instructor: Dr. W. Brad Barbazuk, Department of Biology and the UF Genetics Institute
Office hours: TUESDAY 12:00PM-2:00pm, CGRC room 407 2033 Mowry rd. or by appointment (273-8624)
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Graduate TAs:

Lucas Boatwright, Department of Biology, CGRC room 420
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Course website: UF e-learning

Text: Klug, Cummings, Spencer, & Palladino 2015. Concepts of Genetics, 11th ed. Pearson, New York.

Schedule: T,R, periods 3 and 4 (9:35 - 11:30), LIT 0109

Description:
PCB 3063 is an introduction to genetics course covering topics from Mendellian 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).

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).

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 your score on the cumulative exam is higher than your averaged score, 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.

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!! Actual dates will be announced well in advance.

Genetics Syllabus, Fall 2016

Week	Topic	Read:	Suggested Problems	Subtopics
1 8/23 & 8/25	Transmission Genetics I	CH 2,3	**TBA**	Genetics Introduction; mitosis & meiosis; Mendelian genetics: Punett squares & probability,
2 8/30 9/1	Transmission Genetics I Transmission Genetics II	CH 3 CH 4	**TBA**	Mendelian genetics continued Sex Chromosomes
3 9/6 9/8	Transmission Genetics III RECAP	CH4/5 CH 3/4/5	**TBA**	Epistasis, lethality, etc.
4 9/13 9/15	Transmission Genetics III Microbial genetics	CH 5 CH 6	**TBA**	Linkage & mapping in eukaryotes Microbial genetics
5 9/20 9/22	Sex Chromosomes Chromosome Mutation	CH 7 CH 8	**TBA**	Microbial genetics Chromosome Mutations
6 9/27 9/29	Exam I Molecular Genetics II	CH 10-12	**TBA**	**EXAM I 9/29** DNA: the genetic material; replication & recombination; chromatin structure
7 10/4 10/6	Molecular Genetics III	CH 10-12 CH 13	**TBA**	DNA: the genetic material; replication & recombination; chromatin structure The Genetic code
8 10/11 10/13	Molecular Genetics IV	CH 13/14 CH 14	**TBA**	The Genetic code & Transcription Translation
9 10/18 10/20	Molecular Genetics V	CH 15 CH 16	**TBA**	Gene Mutation, DNA repair, transposition Regulation of gene expression: prokaryotes
10 10/25 10/27	Molecular Genetics V	CH 16/17 CH 17	**TBA**	Regulation of gene expression: prokaryotes Regulation of gene expression: eukaryotes
11 11/1 11/3	Molecular Genetics VI EXAM II	CH 18/19	**TBA**	Regulation of gene expression: eukaryotes Developmental genetics Cancer and Cell cycle regulati

12			**TBA**	
11/8	Molecular Genetics VI	CH 19		Developmental Genetics
11/10		CH 20		Biotechnology
13	Molecular Genetics VI		TBA	
11/15		CH 21/22		Genomics & Genome Projects
11/17		CH 21/22		Applications of Genomics
14				
11/22	Evolutionary Genetics I	CH23		Quantitative Genetics
11/24	UF Thanksgiving Break			
15			**TBA**	Population genetics and
11/29	Evolutionary Genetics I	CH 25		Evolutionary genetics
12/1	Class Project Presentation	CLASS PROJECT		**Class Project 12/1**
16				**Class Project 12/3**
12/6	Class Project Presentation			

FINAL EXAM DECEMBER 13