

## PCB 3063, GENETICS, FALL 2014, SECTION 4334

**Instructor:** Dr. W. Brad Barbazuk, Department of Biology and the UF Genetics Institute  
Office hours: Thr 10am-12pm, CGRC room 407 3033 Mowry rd. or by appointment (273-8624)

[bbarbazuk@ufl.edu](mailto:bbarbazuk@ufl.edu)

### Graduate TAs:

Wenbin Mei, Department of Biology, CGRC room 420

Office hours: 2pm-3pm Tuesdays

wenbin mei [wmei@ufl.com](mailto:wmei@ufl.com)

Guanqiao Feng, Department of Biology, CGRC room 420

Office hours: 2pm-3pm Mondays

[gfeng@ufl.edu](mailto:gfeng@ufl.edu)

Course website: UF elearning

**Text:** Klug, Cummings, Spencer, & Palladino 2012. Concepts of Genetics, 10th ed. Pearson, New York.

Schedule: M,W, periods 9 and 10 (4:05 - 6:00), MCCA G186

### Description:

PCB 3063 is a 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% Exam III; 25% Class Project

- 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 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.

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 2009

Week	Topic	Read:	Suggested Problems	Subtopics
1 8/25 & 8/27	Transmission Genetics I	CH 1,2,3	<b>TBA</b>	Genetics Introduction; mitosis & meiosis; Mendelian genetics: Punnett squares & probability,
2 9/1 & 9/3	Labor Day is 9/1	CH 3	<b>TBA</b>	Mendelian genetics continued
3 9/8 & 9/10	Transmission Genetics II Transmission Genetics II Transmission Genetics III	CH7 CH 4	<b>TBA</b>	Sex chromosomes Epistasis, lethality, etc.
4 9/15 & 9/17	Transmission Genetics IV	CH 4/5 CH 5/6	<b>TBA</b>	Linkage & mapping in eukaryotes Microbial genetics
5 9/22 & 9/24	Molecular Genetics I	CH 6 CH 8	<b>TBA</b>	Microbial genetics Chromosome Mutations
6 9/29 & 10/1	Exam I Molecular Genetics II	CH 10-12	<b>TBA</b>	<b>EXAM I 9/29</b> DNA: the genetic material; replication & recombination; chromatin structure
7 10/6 & 10/8	Molecular Genetics III	CH 10-12  CH 15	<b>TBA</b>	DNA: the genetic material; replication & recombination; chromatin structure Gene Mutation
8 10/13 & 10/15	Molecular Genetics IV	CH 13 CH 13/14	<b>TBA</b>	The Genetic code & Transcription Translation
9 10/20 & 10/22	Molecular Genetics V	CH 14  CH 16	<b>TBA</b>	Translation  Regulation of gene expression: prokaryotes
10 10/27 & 10/29	Molecular Genetics V <b>EXAM II 10/29</b>	CH 17	<b>TBA</b>	Regulation of gene expression: eukaryotes
11 11/3 & 11/5	Molecular Genetics VI	CH18 CH19	<b>TBA</b>	Developmental genetics  Cell Cycle regulation and Cancer
12 11/10 & 11/12	Molecular Genetics VI	CH20 CH21	<b>TBA</b>	Biotechnology Genomics and Proteomics

13 11/17 & 11/19	Molecular Genetics VI	CH 21 CH 22	<b>TBA</b>	Genomics & Genome Projects  Applications of Genomics
14 11/24 & 11/26	Evolutionary Genetics I UF Thanksgiving Break	CH 23	<b>TBA</b>	Quantitative Genetics
15 12/1 & 12/3	Evolutionary Genetics II Class Project Presentation	CH25 CLASS PROJECT	<b>TBA</b>	Population genetics <b>Class Project 12/2</b>
16 12/8 & 12/10	Class Project Presentation  Exam III	CLASS PROJECT		<b>Class Project 12/2</b> <b>EXAM III 12/10</b>