

Syllabus: PCB 3063 Genetics
Term: Summer C, 2007

Instructor: Dr. DeEtta (Dee) Mills
Office: HLS 418B
Office Hours: Monday: 2:30-4:00 pm or by appointment
Office Phone: 305 348 7410

Class meets: M-W 11 am to 12:15 pm
Room: GL 523

Objective: The objective is to expand your basic knowledge and understanding of genetics. This course will cover critical thinking skills, the basics principles DNA replication, recombination, chromosomal variations, heredity and population genetics, etc. by introducing concepts from viral, prokaryotic and eukaryotic model systems.

Tentative Syllabus/schedule

Dates: 2007	Subject	Assigned Chapters to read
May 7	Syllabus, grading, etc.; <i>Module I:</i> introduction to genetics; review of cell biology & structure	1,2
May 9	Cell cycle, mitosis & meiosis	2
May 14	<i>Module II:</i> DNA: a review; genetic code, DNA replication, transcription	10, 12, 13
May 16	RNA, translation	14, 15
May 21	<i>Module III:</i> Classic Mendelian genetics	3
May 23	Heredity & linked characters	4,5
May 28	Memorial Day (University closed)	
May 30	First exam: Modules I-III	
June 4	<i>Module IV:</i> Viral genetics	8
June 6	Prokaryotic genetics	8, 11
June 11	Eukaryotic genetics	11
June 13	<i>Module V:</i> Linkage, recombination & gene mapping	7
June 18	Mutation and gene repair	17
June 20	<i>Module VI:</i> Pedigree analyses	6
June 25	Population genetics	23
June 27	Evolutionary genetics	23
July 2	Second exam Module IV-VI	
July 4	4th of July (University closed)	
July 9	<i>Module VII:</i> Quantitative genetics	22
July 11	Organelles	20
July 16	Sex linked traits	4

July 18	Recombinant DNA & genetic engineering	18
July 23	<i>Module VIII: Special topics</i>	
July 25	Special topics	
July 30	Special topics	
Aug 1	Third exam: Module VII-VIII	
Aug 6	Review	
Aug 8	Final exam week: Modules I-VIII	

This will be a Web-CT assisted course and various materials will be posted throughout the semester. Quizzes will be posted on line and taken as assigned. They will be announced in class and posted to the WebCT calendar. A PRACTICE QUIZ is available on Web-CT; it is HIGHLY suggested you take it so you will understand the process of taking the quizzes and there will be a time limit for all quizzes. In addition, pop quizzes may occasionally be given at the beginning of any lecture class to insure (a) you have read the materials assigned and (b) to take attendance. Other reading assignments and homework will be given periodically.

This class will be present modules of information. Pre- and post- self-assessments will be taken at the beginning and end of each module. The self-assessments will be part of the quiz and attendance grade.

Exams & grading

Three exams of equal value and a cumulative final exam (required) will be given throughout the semester.

You may drop your lowest grade of the three in-semester exams

No make-up exams will be given!

FINAL IS NOT OPTIONAL! It is cumulative

Grades will be calculated as follows:

Two (of 3) Exams	60%
Final Exam (required)	20%
Self-assessment, Quizzes, attendance, other assignments	20%

The final grade will be calculated based on the following scale:

90-100	A
80-89	B
70-79	C
60-69	D
59 or below	F

If found cheating, YOU WILL RECEIVE AN “F” FOR THE CLASS, NO EXCEPTIONS.

Text book: Genetics: A Conceptual Approach, Second Edition:

The required textbook for this course is Pierce, *Genetics: A Conceptual Approach*, Second Edition. There is a very helpful free Web site to accompany the book at www.whfreeman.com/pierce2e. This site from the publisher has activities and animated tutorials for the more challenging concepts from the text.

The textbook can be considered your basic reference book. Other sources will be used for the lectures as well. All information you may need for tests will come from lecture, your book or other required readings. Other reading assignments and/or homework assignments will be posted on WebCT throughout the semester. You will be responsible for these as well and can be used as testing material.