This is a sample syllabus only. The instructor may make changes to the syllabus in future courses

BY 210-1D Genetics  Spring 2014 MWF 11:15 AM-12:05 PM CH405

INSTRUCTOR: Dr. Shahid Mukhtar
Office: Campbell Hall 369, 934-8335  smukhtar@uab.edu
Office Hours: Wed 1:30-2:30pm or by appointment

Genetics: Solutions and Problem-Solving Manual (Choi and McCallum)

TEXTBOOK WEBSITE: http://bcs.whfreeman.com/pierce4e/
ADDITIONAL MATERIALS: i>clicker 2 (start using on Jan 22)

COURSE DESCRIPTION:
Goals of this course include:
- To provide an introduction to the principles and mechanisms of inheritance.
- To provide an introduction to the structure, action and regulation of genes.
- To provide an introduction to molecular genetic technology.
- To discuss the applications of modern molecular genetic technology to human health and agriculture.
- To provide the necessary background for upper-level courses in genetics, evolution and cell biology.

FIRST EXAM: Wednesday, Feb. 05
SECOND EXAM: Monday, March 03
THIRD EXAM: Monday, March 31
FOURTH (FINAL) EXAM: Monday, April 21 10:45 – 11:45 AM

Evaluation for Final Grades:
Exam I - 25%
Exam II - 25%
Exam III – 25%
Final Exam (not comprehensive) - 25%
iClicker bonus-  5%
Total 105%

Final grades will be assessed based on a 10% increment scale:
90-105%   A
80-89.9%   B
70-79.9%   C
60-69.9%   D
0-59.9%    F

Make-up Exam Policy: Make-up exams for the first three exams will be administered in the last week of class (no exceptions). Only individuals with written medical (Doctor) or legal excuses will be allowed to take the test. The excuse must be submitted to me no later than seven (7) days after the missed exam; otherwise, the grade will be assigned as a 0. Individuals must contact my office within 24 hours of an exam (either before or after) to be considered for a make-up exam; otherwise, the grade will be assigned as a 0. No more than 1 make-up exam for each Student is permitted unless extreme, extenuating circumstances prevail. Although covering the same material, the format of make-up exams may differ from that of the original exam and may include oral examination.

Lectures will primarily follow the textbook. However, there will be material presented in class that is not in the textbook, therefore, regular class attendance is recommended. PowerPoint slides will be made available to Students via Blackboard. The Student will be responsible for any missed lecture material by reviewing the slides and referencing the text. Office hours will not be used as catch-up sessions for missed lectures. Four in-class exams are scheduled for this course. Students will have only 1h to complete the in-class exam unless the Student has official UAB documentation through the office of Disability Support Services. All Students with such documentation are responsible to inform the instructor of arrangements prior to EACH exam. In order to register with the office of Disability Support Services you may go to 9th Ave. Office Building (1701 9th Ave. South) or call 934-4205.
Conduct: The use of cellular phones and other mobile devices during class is disruptive and disrespectful to your fellow classmates and instructor. Therefore, all electronic devices must be either turned off or on vibrate during class. You will be asked to leave if your ringtone sounds in class or you are observed talking on the phone or texting during class. If you have an emergency and must take a call - be polite and go outside.

BY 210 Genetics    Syllabus Spring 2014

Introduction to Genetics – CH1
Chromosomes and Chromatin – CH2,11
Cell Cycle, Mitosis, Meiosis – CH2
Principals of Mendelian Genetics – CH3
Extensions of Mendelian Genetics– CH5,6
Sex Determination – CH4

Exam 1
DNA Replication – CH12
Molecular Mechanisms of Gene Transcription – CH13,14
Genetic Code and Translation – CH15
Regulation of Gene Expression in Prokaryotes – CH16
Regulation of Gene Expression in Eukaryotes – CH17
Chromosome & DNA Mutations – CH9,18
DNA Damage Repair – CH18

Exam 2
Introduction to Molecular Genetics Technology – CH19
PCR and Gene Cloning – CH19, lecture materials
DNA and Whole Genome Sequencing – lecture materials
Genomics, Transcriptomics and Proteomics – CH20
Modern applications of molecular genetics- CH19, lecture materials

Exam 3
Genetics of Viruses and Bacteria – CH8
Organelle Genetics and Evolution – CH21
Genetics of Cancer – CH23
Quantitative Genetics – CH24
Population Genetics – CH25

FINAL (4th) EXAM

The above schedule is tentative.
You are expected to read the syllabus and know its contents.

Withdraw deadline is March 31st

Supplemental Instruction: I am pleased to announce that this course has supplemental study sessions led by a student who has successfully completed the course and has had extensive training (Jessica Lopez; jalopez@uab.edu). These sessions will be invaluable to you in this course as well as providing study skills that will help you in other courses. Please make every effort to attend. Jessica will hold her sessions on Mondays and Wednesdays 10:10am- 11:00am in Heritage Hall 126 and have office hours on Monday 9:00am- 9:55am in Education Building 242. All BY210 SI materials, worksheets and mock exams will be available online at https://sites.google.com/site/by210genetics/

i>clicker info: We will start using i>clicker 2 on Jan 22. Please register your remote on the Blackboard before class. To do so, you will need to log on to BB and click on the "Register your remote here" link that I deployed
for you in the green toolbox on the left side of the screen. You will need to punch in the code (found on the remote under the bar code, a combination of letters and numbers). Remember to have your remote in class every time to earn bonus points for a better final grade!