GEORGIA INSTITUTE OF TECHNOLOGY
BIOLOGY 2344 A/Q
Short summer session I
SUMMER 2014
GENETICS LECTURE SYLLABUS

Lecture: Tuesday/Thursday, 12:00 – 2:35 PM
Location: 322 Cherry Emerson

Instructor: Dr. Mirjana M. Brockett, School of Biology
Email: mirjana.brockett@biology.gatech.edu
Phone: 404-385-6885
Office: 323 Cherry Emerson
Office hours: M, W 1:00-2:00 PM or by appointment

Goals: To obtain an understanding and appreciation of fundamental concepts in genetics; To apply accumulated knowledge by solving problems and interpreting experiments; To understand the experimental path towards early key discoveries in genetics.

Prerequisites: BIOL 1510 or BIOL 1511

Klug, Cummings, Spencer & Palladino
©2015 | Benjamin Cummings | Cloth Bound with Access Card; 896 pp |
Not Yet Published
- See more at:
http://www.pearsonhighered.com/pearsonhigheredus/educator/search/hipSearchResults.page?isbnFlag=false#sthash.OjmvhGCu.dpuf

Attendance: If you miss lecture, you are responsible for obtaining all notes, announcements, and assignments. Lecture is a time when we all work together, so be courteous to your fellow students and do not disrupt class by entering and leaving the room during class, reading, talking, allowing cell phones to ring, etc. If you know that you must leave class early, sit in the back and leave quietly.

Technology: Use of technology including laptops, tablets, and smartphones during lecture is prohibited except when explicitly invited to use them for specific in-class activities.

Assessments: Your grade in genetics lecture will be determined by your performance on exams, unannounced quizzes, in-class activities, and group projects. The relative values of these assignments are:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midterm Exams (3)</td>
<td>45%</td>
</tr>
<tr>
<td>Mastering Genetics Activities</td>
<td>20%</td>
</tr>
<tr>
<td>Learning Catalytics/ In class Assignments</td>
<td>15%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

The most stringent scale used will be 90-100% an A, 80-89% a B, 70-79% a C, 60-69% a D, and 59% or less an F. This scale is subject to adjustment at our discretion. We will attempt to give estimates of grades periodically throughout the semester.

Questions on pop quizzes will usually come directly from suggested problems in your textbook. Questions on exams will follow the homework and book problems very closely. Problems regarding grades on assignments must be handled through the regrade system.
For students in BIOL 2344 A section: {Written confirmation of a legitimate excuse, such as a severe illness, will be required to take any make-up exam or quiz. NO EXCEPTIONS! Your conduct in the course should conform to the Student Honor Code (http://www.honor.gatech.edu). }

Academic Integrity: Academic dishonesty will not be tolerated. This includes cheating, lying about course matters, plagiarism, stealing classroom materials, or helping others commit a violation of the Honor Code. Students are reminded of the obligations and expectations associated with the Georgia Tech Academic Honor Code and Student Code of Conduct, available online at www.honor.gatech.edu.

Learning Accommodations: If needed, we will make classroom accommodations for students with disabilities. These accommodations must be arranged in advance and in accordance with the ADAPTS office (http://www.adapts.gatech.edu).

<table>
<thead>
<tr>
<th>Lecture</th>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12-May</td>
<td>Syllabus review and Introduction (Single gene inheritance and independent assortment of genes)</td>
</tr>
</tbody>
</table>
| 2       | 14-May | Gene Interaction  
MIDTERM 1                     |
| 3       | 19-May | From genes to proteins:  
DNA structure and replication  
RNA transcription and processing  
Proteins and their synthesis  |
| 4       | 21-May | Biotechnology and Genomics  
MIDTERM 2                     |
| 5       | 26-May | Regulation of Gene Expression  
Prokaryotes and Eukaryotes   |
| 6       | 28-May | Genetic Control of Development  
Epigenetics and Stem Cell Biology |
| 7       | 02-June| Dynamic Genome: Transposable Elements  
MIDTERM 3                     |
| 08      | 04-June| Mutation, recombination and  
large scale chromosomal changes |
| 09      | 09-June| Population Genetics                                                 |
| 10      | 11-June| Genetics and Evolution  
LAST DAY OF CLASS/ Review    |
| 15-17 June | Final Exam (room 322) |