SYLLABUS:
Course: Molecular Biology 3415.01
Instructor: Lucia Carreon Martinez, Ph.D.
Building/Room: BEOBL 131
Office Hours: TBA

Instructor and contact information:
Office East Office Building (BEOBL) #131 (building on Jackson street)
e-mail at: lucia.carreonmartinez@utrgv.edu

Textbook:
The textbook is Molecular Biology of Cox 2ed, with LaunchPad
Authors: Michael M. Cox (University of Wisconsin-Madison), Jennifer Doudna (University of California, Berkeley), Michael O'Donnell (Rockefeller University)

These are other format purchases that you can find on the Macmillan website.
✓ LaunchPad + Loose Leaf Sheets book $167.99
   Loose-leaf Version for Molecular Biology: Principles and Practice 2e & LaunchPad for Cox's Molecular Biology (6 month access)
   Michael M. Cox; Jennifer Doudna; Michael O'Donnell

✓ LaunchPad for Cox's Molecular Biology (6 month access) (9781464182525) $119.99
   LaunchPad
   LaunchPad for Cox's Molecular Biology (6 month access)
   Michael M. Cox; Jennifer Doudna; Michael O'Donnell

http://www.macmillanlearning.com/Catalog/product/molecularbiology-secondedition-cox/valueoptions#tab

It is very important that you read this syllabus thoroughly and carefully. This class could prove to be challenging to some of you, therefore if you want to learn and obtain a good grade it is important to follow the student responsibilities listed below.

Student responsibilities:
• Review the lecture content before each course meeting to facilitate the acquisition of information during the lecture.
• Participation is strongly encouraged.
• Do your LAUNCH PAD assignments before the due date or you will get 0% credit. There are NO extensions on this due date, unless a valid excuse is discussed with your instructor BEFORE the assignment its due.
• In order to keep up with the large volume of information students should also review each lecture after each course meeting to help formulate questions to close any gaps in knowledge.
• Students will be expected to be familiar and caught up with the terminology used in lecture, to maintain a conversation about the course content.
• Students are anticipated to apply common sense and acquired information/terminology, logic and analytical skills to think their way through problems and scenarios.
• Lectures should be read, examined, studied, discussed for NO LESS than three hours each OR UNTIL FULLY UNDERSTOOD and then reviewed again in detail for each examination.

Important dates
Jan. 16 (Mon.) Martin Luther King Jr. Holiday. No classes.
Jan. 17 (Tues.) Spring classes begin. Official First Class Day.
Feb. 1 (Wed.) Census Date (Last day to drop without it appearing on the transcript)
Mar. 13 – Mar. 18 (Mon. – Sat.) Spring Break. No classes.
April 13 (Thurs.) Last day to drop a class (grade of DR) or withdraw (grade of W)
April 14 – April 15 (Fri. – Sat.) Easter Holiday. No classes.
May 4 (Thurs.) Study Day. No classes.
May 5 – 11 (Fri. – Thurs.) Final Exams

The use of any electronic devices (computers, phones, PADs, etc) during lectures is NOT allowed. Once again, I will ask you to leave if you are using these devices during the lecture.

COURSE ASSESSMENT
FOUR EXAMS = 25% each, FINAL EXAMINATION (EXAM V) IS COMPREHENSIVE AND IS PART OF YOUR FINAL GRADE. The grading scale for the course is: A= 90-100%, B = 80-89.99, C=70-79.99, D= 60-69.99, F < 60%

Four major exams represent the basis for the course grade. Although no curves will be applied, you will have the opportunity to score up to 110 points in each exam and the examination will be graded on a 100 point scale (10 points are “extra credit”).

Exams will consist of different style questions including: multiple choice questions, fill-in the blanks, short answers, matching and/or essay questions. The questions will require knowledge of terminology, ability to describe mechanisms, analytical and interpretive skills, and application of concepts learned in the course. The material covered in each of the four examinations is limited to the chapters covered in class before that specific examination, except for the comprehensive final exam. Questions in each exam are drawn from sections of the textbook that corresponds to each lecture.

The exams are designed to test knowledge and understanding of the material. The lowest grade among all 5 examinations will be dropped; hence, if you are satisfied with your course average after the 4 exams you don’t have to take the final.

It is not recommended to study from the Power Point presentations since they are not sufficient to acquire all the necessary information to pass each examination. Although exams 1 through 4 are not comprehensive, the material covered in each chapter is built on knowledge that must have been acquired in the prior chapters.

COURSE SCHEDULE AND CONTENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic:</th>
<th>Chapter:</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 23</td>
<td>Evolution, Science and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>January 25</td>
<td>DNA and RNA structure</td>
<td>6</td>
</tr>
<tr>
<td>January 30</td>
<td>Studying genes</td>
<td>7</td>
</tr>
<tr>
<td>February 1</td>
<td>Genomes, Transcriptomes and Proteomes</td>
<td>8</td>
</tr>
<tr>
<td>February 6-8</td>
<td>Catch-up lecture</td>
<td></td>
</tr>
<tr>
<td>February 13</td>
<td>EXAM I</td>
<td></td>
</tr>
<tr>
<td>February 15</td>
<td>Topology Functional Deformations of DNA</td>
<td>9</td>
</tr>
<tr>
<td>February 20</td>
<td>Nucleosomes, Chromatin and Chromosome...</td>
<td>10</td>
</tr>
<tr>
<td>February 22</td>
<td>The replication of DNA</td>
<td>11</td>
</tr>
<tr>
<td>February 27</td>
<td>DNA mutation and repair of DNA</td>
<td>12</td>
</tr>
<tr>
<td>March 1</td>
<td>Catch-up lecture</td>
<td></td>
</tr>
<tr>
<td>March 6</td>
<td>EXAM II</td>
<td></td>
</tr>
<tr>
<td>March 8</td>
<td>Recombinational DNA repair and homologous...</td>
<td>13</td>
</tr>
<tr>
<td>March 13-18</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
</tbody>
</table>
March 20  Site specific recombination and transposition  14
March 22  Transcription: DNA dependent synthesis of RNA  15
March 27  RNA- processing  16
March 29  Catch-up lecture
April 3  EXAM III ()
April 5  The genetic code (Group presentations)  17
April 10  Protein synthesis (Group presentations)  18
April 12  Regulating the flow of information  19
April 17  The regulation of gene expression in Bacteria  20
April 19  The transcriptional regulation of gene… in Euka  21
April 24  The post-transcriptional regulation… in Eukaryotes  22
April 26  Catch up lecture
May 1/3  EXAM IV ()
May 8  FINAL EXAM (V) 1:15- 3:00 PM ALL CHAPTERS

This tentative schedule is subject to changes and adjustments. You will be notified of any changes/updates in Lecture.

EXAMINATIONS
For each examination you need to bring a SCANTRON form no. 882-E, pencils, pen and eraser. An answer sheet will be provided along with each examination. All exam sheets MUST be returned.
There are no bathroom breaks during examinations in case of emergency- talk to instructor BEFORE the exam.

During examinations your table top must be devoid of books, notes, calculators, telephones, or anything other than up to three pencils/pens, an eraser, the examination, one provided answer sheet, and a SCANTRON form no. 882-E.

THE USE OF CELL PHONES OR ANY ELECTRONIC GADGET IS STRICTLY FORBIDDEN DURING EXAMINATIONS. All possessions must be placed against a wall of the classroom, neither on the seat next to yours nor on the floor by your seat. You must return your copy of the exam when you turn in your scantron and answer sheet.
Failure to do so will result in 0 points in the examination.

Students can schedule a meeting with the Professor to go over their examinations in person to address any concerns. Issues concerning examinations and grading will be addressed for one week after each exam is given, but not later. After one week from the day of completion of an examination the existing grade will be retained. Exams will not be returned to the student.

GRADING
The course allows each student to score a maximum 480 points (110 points x 4 exams = 440 possible + 40 LaunchPad points). LaunchPad is worth 40 points (2.5% each) and it's NOT optional
440-320 + 40 LaunchPad = A
319-280 + 40 LaunchPad = B
279-240 + 40 LaunchPad = C
239-200 + 40 LaunchPad= D

Thus, a generous 10 to 15 % sliding adjustment is built into the course grading scale AND the lowest exam grade will be removed from the average, these represent a curve and extra credit respectively. No make-up examinations will be scheduled during the course of the semester. Missed examinations are scored as 0 and count as such (dropped lowest grade), you could replace a missed examination by taking the Final Exam (comprehensive exam).
ACADEMIC DISHONESTY
Students who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, and submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced. (Board of Regents Rules and Regulations)

All scholastic dishonesty incidents will be reported to the Dean of Students. Do not allow your peers to pressure you to cheat. Your grade, academic standing and personal reputation are at stake. For a brief informative video on cheating and its consequences go to http://www.utrgv.edu/en-us/student-experience/student-services/dean-of-students/vaquero-honor-code/index.htm make sure you read the Academic Dishonesty Sanction Guidelines.

WITHDRAWAL POLICY
Because knowledge is cumulative, the exams become increasingly difficult as the course proceeds; it is therefore more difficult than it may appear to overcome an initial gap of knowledge (and low average).

ATTENDANCE
There is no attendance policy in this section of this course. This is a University course intended for serious young adults. If you know what’s good for you, you will not skip a single lecture and especially no exams. This will be a challenging course, you will need to attend to pass, natural selection will weed out those that do not make an effort naturally; I will make surprise roll calls or distribute sign-up sheets. Do keep in mind that I will also get to know who you are if you show up to class…. and that could be a good thing when I decide whether to round up or down your grade at the end of the semester….

STUDENTS’ ACADEMIC RESPONSIBILITIES
Students are expected to be diligent in their studies and attend class regularly and on time. Students are responsible for all class work and assignments. On recommendation of the instructor concerned and with the approval of the Dean, students may, at any time, be dropped from courses. This may result in a “W” or “F” on the student’s permanent record.

INCOMPLETE GRADE POLICY
An incomplete grade may be given when students have not completed the required course work within the allotted time of a regular semester if the student can demonstrate that the reason for the work being incomplete is justified and some grades have already been recorded. Requests for incomplete grades will be forwarded to the Registrar’s Office and/or to the Office of the Assistant Dean of the College of Science and Mathematics. Incomplete grades are not issued for student’s convenience or general lack of performance nor will they be issued to students before completion of the midterm a priori; they may be issued only in the case of compelling, non-academic circumstances beyond the student’s control that must be demonstrated as requested by the instructor and/or the Department/College/University. Requests for consideration of incomplete grades must be made in advance of missed exams or lectures.

UTRGV Policy Statements
STUDENTS WITH DISABILITIES:
If you have a documented disability (physical, psychological, learning, or other disability which affects your academic performance) and would like to receive academic accommodations, please inform your instructor and contact Student Accessibility Services to schedule an appointment to initiate services. It
is recommended that you schedule an appointment with Student Accessibility Services before classes start. However, accommodations can be provided at any time. Brownsville Campus: Student Accessibility Services is located in Cortez Hall Room 129 and can be contacted by phone at (956) 882-7374 (Voice) or via email at accessibility@utrgv.edu. Edinburg Campus: Student Accessibility Services is located in 108 University Center and can be contacted by phone at (956) 665-7005 (Voice), (956) 665-3840 (Fax), or via email at accessibility@utrgv.edu.

MANDATORY COURSE EVALUATION PERIOD:
Students are required to complete an ONLINE evaluation of this course, accessed through your UTRGV account (http://my.utrgv.edu); you will be contacted through email with further instructions. Online evaluations will be available Nov. 18 – Dec. 9, 2015. Students who complete their evaluations will have priority access to their grades.

ATTENDANCE
Students are expected to attend all scheduled classes and may be dropped from the course for excessive absences. UTRGV’s attendance policy excuses students from attending class if they are participating in officially sponsored university activities, such as athletics; for observance of religious holy days; or for military service. Students should contact the instructor in advance of the excused absence.

SCHOLASTIC INTEGRITY:
As members of a community dedicated to Honesty, Integrity and Respect, students are reminded that those who engage in scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and expulsion from the University. Scholastic dishonesty includes but is not limited to: cheating, plagiarism, and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. Since scholastic dishonesty harms the individual, all students and the integrity of the University, policies on scholastic dishonesty will be strictly enforced (Board of Regents Rules and Regulations and UTRGV Academic Integrity Guidelines). All scholastic dishonesty incidents will be reported to the Dean of Students.

SEXUAL HARASSMENT, DISCRIMINATION, and VIOLENCE:
In accordance with UT System regulations, your instructor is a “responsible employee” for reporting purposes under Title IX regulations and so must report any instance, occurring during a student’s time in college, of sexual assault, stalking, dating violence, domestic violence, or sexual harassment about which she/he becomes aware during this course through writing, discussion, or personal disclosure. More information can be found at www.utrgv.edu/equity, including confidential resources available on campus. The faculty and staff of UTRGV actively strive to provide a learning, working, and living environment that promotes personal integrity, civility, and mutual respect in an environment free from sexual misconduct and discrimination.

COURSE DROPS:
According to UTRGV policy, students may drop any class without penalty earning a grade of DR until the official drop date. Following that date, students must be assigned a letter grade and can no longer drop the class. Students considering dropping the class should be aware of the “3-peat rule” and the “6-drop” rule so they can recognize how dropped classes may affect their academic success. The 6-drop rule refers to Texas law that dictates that undergraduate students may not drop more than six courses during their undergraduate career. Courses dropped at other Texas public higher education institutions will count toward the six-course drop limit. The 3-peat rule refers to additional fees charged to students who take the same class for the third time.