Course Description: This course will give students a rigorous and yet basic understanding and appreciation of the fundamental principles of molecular cell biology. Specifically, this course is directed towards an understanding of how the living cell works, with particular attention to the molecules of the cell – especially the protein, DNA, and RNA molecules – and how they cooperate to create a remarkable system that is capable of responding to stimuli, move, grow, divide and duplicate itself. The laboratory segment of the course will expose students to common molecular biology techniques and methods for observing cells and gene activity. The emerging field of molecular cell biology, a union of several subfields of biology including genetics, cell biology, biochemistry, and microscopy, seeks a more comprehensive understanding of the cell, and ultimately the organism.

Learning Objectives:
After completing this course a student should be able to understand and remember the molecular basis of many aspects of cellular structure and function, including the structure and function of biological macromolecules, especially proteins, DNA, and RNA, and how these molecules cooperate to form the cell. The student should be able to understand and apply several modern laboratory methods of molecular biology. The student should be able to think critically about how one studies cellular processes and functions.


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<td>• An overview of gene control</td>
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**Attendance and participation:** According to the attendance policy at the University, you must attend class during the first two weeks of the semester or you will be dropped from the rosters for both lecture and lab. To comply with attendance verification requirements, a report of your attendance will be made on February 4th. Attendance and participation in the lab is mandatory. **Missed labs cannot be made up** - see Lab Syllabus for details.

**Grades:** There will be three lecture exams and a final cumulative exam. The final exam will count for twice as much as each lecture exam. There will also be 3 quizzes. The average grade of these quizzes will be counted as an additional lecture exam grade. Exams will account for 75% of the course grade. Laboratory participation, lab exams, and lab reports will account for 25% of the grade.

**Make-up exams** will only be given to those students who miss a test because of an official University activity or because of illness, or other excused activities. *Arrangements for a makeup test should be made prior to the absence.* It is your responsibility to contact me in person to schedule a makeup exam. Make-ups are given solely at the instructor’s discretion – do not assume that you will be automatically allowed to take a make-up exam. Make-up exams must be taken at a date and time decided by the instructor, generally within 2-3 days of the original exam date.

**Grading Scale:**
- A: 93-100; A−: 90-92; B+: 87-89; B: 83-86; B−: 80-82; C+: 77-79; C: 70-76; D: 60-69; F: 59 or below

**Final exam schedule:** Thursday, May 9th 8:00 AM
University rules allow a student to change the time of a final exam if that student has three tests on one day. The regulations read: "Any student having three or more examinations scheduled for the same day will arrange with the instructor to take the 12:00 noon examination or the 7:30 p.m. examination on some other mutually satisfactory date.”

**Other Notes and Policies**

**Disability Access and Inclusion:** The University of Mississippi is committed to the creation of inclusive learning environments for all students. If there are aspects of the instruction or design of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement, please contact the course instructor as soon as possible. Barriers may include, but are not necessarily limited to, timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files. If you are approved through SDS, you must log in to your Rebel Access portal at [https://sds.olemiss.edu](https://sds.olemiss.edu) to request approved accommodations. If you are NOT approved through SDS, you must contact Student Disability Services at 662-915-7128 so the office can: 1. determine your eligibility for accommodations, 2. disseminate to your instructors a Faculty Notification Letter, 3. facilitate the removal of barriers, and 4. ensure you have equal access to the same opportunities for success that are available to all students.

**Challenges to Assigned Grades:** Challenges to assigned grades will be welcomed in writing. Challenges must be submitted within one week of a graded assignment.

**Academic Integrity:** Any form of misconduct -- cheating, plagiarism, fabrication -- will not be tolerated and may subject violators to a failing grade in the course.

**Incompletes** will not be given except in extreme circumstances beyond a student’s control.

**Withdrawals:** The last date for withdrawal is Monday, March
This syllabus is subject to change at the discretion of the instructor to accommodate instructional, and/or student needs.