

UC Riverside – BIOLOGY 005A – Spring, 2021 – Sections 030/050/UC1

Introduction to Cell and Molecular Biology

Prof. Morris Maduro (mmaduro@ucr.edu)

Week	Day	Dates	Reading*	Topics (Notes provided on iLearn)
1		Mar 29 – Apr 2	Ch. 2, 3	(1) Cell Theory, atoms, bonding; (2) Water; (3) Carbon, functional groups
2		Apr 5 – 9	Ch. 4, 5	(4) Biological macromolecules: Carbohydrates, Lipids, Proteins, Nucleic Acids
3		Apr 12 – 16	Ch. 7	(5) Membrane structure and function
	F	Apr 16	MIDTERM 1, counts 17% of grade, covers Topics (1)-(4)	
4		Apr 19 – 23	Ch. 6, 8	(6) Cell structure; (7) Metabolism: thermodynamics; enzymes
5		Apr 26 – Apr 30	Ch. 9	(8) Cellular Respiration
6		May 3 – 7	Ch. 10, 16	(9) Photosynthesis; (10) DNA as the genetic material
	F	May 7	MIDTERM 2, counts 17% of grade, covers Topics (5)-(8)	
7		May 10 – 14	Ch. 16	(11) DNA replication, PCR; (12) Life Cycles, Mitosis, Meiosis
8		May 17 – 21	Ch. 13, 14, 15	(13) Monohybrid and Dihybrid Crosses (14) Sex Linkage and Chromosomal Linkage
9		May 24 – 28	Ch. 17, 18	(15) Transcription; (16) Translation; (17) Mutations
	F	May 28	MIDTERM 3, counts 17% of grade, covers Topics (9)-(14)	
10		May 31 – Jun 4	Ch. 47	(18) Principles of Development; (19) Genetic Testing; (20) SARS-CoV-2
Final	FINAL EXAM, 25% of grade, covers all topics, emphasis on (15)-(20) Tentative Date/Time: Friday, June 11, 8am-10am			

Prof. Maduro supplies his notes as PDF file on iLearn and most students will be fine with these. *Chapters are from the optional textbook, *Campbell Biology 12th ed.* An alternative is [Biology by OpenStax](#) (free). Page numbers are indicated on iLearn. Students will watch short videos through iLearn. The videos contain questions that count for correctness. For credit, the questions must be completed by the posted deadlines. Videos remain accessible until the end of the course but may not be accessible during exams. When exams/quizzes are not taking place, students may interact with Prof. Maduro via online office hours.

Regular short quizzes will occur during the week. Exams are multiple-choice covering the notes and videos. Questions test for understanding, not just memorization. **Because of the open-book nature of online exams, questions will be more difficult than in the regular course. Posting of any exam questions to a shared drive or publicly accessible website, during the exam or at any time afterwards even after the course is over, constitutes Academic Misconduct.** Violators are reported to [student conduct](#) and if found responsible, the grade will be reduced or turned into a non-passing grade, even if found responsible after the course is over. If an exam is missed with a documented medical excuse for the student, arrangements will be made to take an alternate exam. A minimum average of 35% across the exams (taken by averaging all four exam scores) is required to pass the course.

Attendance of Online Discussions is mandatory. Excused absences are granted only by Prof. Maduro (not the TA) on a case-by-case basis, only for documented medical reasons of the student. Documentation for medical absences must be sent to Prof. Maduro within one week of the missed Discussion. If an excused absence is granted, the Discussion points will be taken out of the reduced maximum number and scaled to a point total /10. Students missing more than three discussions, failing to do many videos on time, or deliberately missing exams, face a further reduction in their final grade.

Exams occur online through the Canvas Learning Management System.

Some of the details of the course may change in response to situations as they arise.

<p>Score calculations (subject to modification): Midterm Exams* – 18% x 3 = 54% total Final Exam* – 26% Discussion – 10% Videos and Quizzes – 10%**</p>	<p>At the end of the year, the final cutoffs will be used to determine the final letter grades. These will be determined by the distribution of scores; performance in the exams; evidence of course content appearing on public websites, and collaboration outside of what is permitted; and assignment of final grades to be consistent with prior years. Typically, the average grade will be between a B- and a B, and 10-12% of students will receive an A or A-.</p>
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*A minimum of 35%, taken by averaging all four exam scores, is required to pass the course.
 **Videos contain questions and there will be additional quizzes during the course.

Grades assigned at the end of the course are final. The deadline for grade inquiries is the end of the next academic quarter.