

Biology 255 - Cell and Molecular Biology

Professors **Daniel DiResta** & **Charles Mallery** - Lecture Schedule – **FALL 2020**

Section SU - TR 3:30pm – 4:45pm & tests on TH @ 6:30pm-7:45pm in Online

Text: Essential Cell Biology, by Alberts et al, 5th edition ISBN 13: 9780393679533. Hardcover: 734pg, ©2014

Date	Topics - https://www.courses.miami.edu	Lecturer	Chapter
8/18 T	1. Classes begin: Welcome & Brief History of CMB - topic 1	Mallery	Blackboard & C-1
8/20 R	2. Properties of Life – Cell Theory & Universal Properties - topic 2	Mallery	C-1; 13-35
8/25 T	3. Properties & Origins of Life and Cells - topics 2 & 3	Mallery	C-1; 13-35; 253-256;
8/27 R	4. Experimental Approaches to Origin of Life - topic 3	Mallery	Blackboard
9/01 T	5. Methodologies for Observing Cells - topic 4	Mallery	pg 5-12; 164-167;
9/01 T	Last day to drop without a "W"		
9/03 R	6. Cell Architecture (Organelles): do on your own - topic 4	Mallery	C-1; 15-26; Blackboard
9/08 T	7. Molecular Logic of Life: do on your own - topic 5 End Test 1 (7 lec)	Mallery	C-2; 39-79
9/10 R	8. Molecular Shapes & Proteins - topic 6	Mallery	C-3; 92-105
9/10 R	Test 1 to be given at 6:35pm online [100 points]	Mallery	Lec 1-7 C 1,2,3,
9/15 T	9. Protein Biochemistry & Enzyme Kinetics - topics 7-8	Mallery	C-4; 121-167; 102-107
9/17 R	10. Metabolic Design & Cellular Energetics - topic 9	Mallery	C-3; 84-115
9/22 T	11. Cellular Respiration — topics 10-11	Mallery	C-13; 419-430
9/24 R	12. Krebs Cycle & ETC - topics 11	Mallery	C-13; 430-443
9/29 T	13. Chemiosmosis - topic 11	Mallery	C-13; 447-469
10/01 R	14. Photosynthesis - topic 12 End of material Test 2 (7 lec)	Mallery	C-14; 469-482
10/06 T	15. DNA and Chromosome	DiResta	C-5
10/08 R	16. DNA Replication, Repair, and Recombination	DiResta	C-6
10/08 R	Test 2 to be given at 6:30pm online [100 points]	Mallery	Lec 8-14, C 3,4,13,14
10/13 T	17. From DNA to Protein – How cells read the genome	DiResta	C-7
10/15 R	18. Control of Gene Expression	DiResta	C-8
	FALL BREAK – Oct 16 – Oct 18		
10/20 T	19. Control of Gene Expression - Evolution of Genomes	DiResta	C-8
10/21 W	Last day to drop a course		
10/22 R	20. Evolution of Genomes End for Test 3 (6 lec)	DiResta	C-9
10/27 T	21. Membrane Structure	DiResta	C-11
10/29 R	22. Membrane Transport	DiResta	C-12
10/29 R	Test 3 to be given at 6:30pm online [100 points]	DiResta	Lec 15-20 C 5-9
11/03 T	23. Cell Signaling I	DiResta	C-16
11/05 R	24. Cell Signaling II	DiResta	C-16
11/10 T	25. The Cell Cycle	DiResta	C-18
11/12 R	26. Control of the Cell Cycle	DiResta	C-18
11/17 T	27. Cell Communities: Tissues & Stem Cells	DiResta	C-20
11/19 R	28. Cancer of material for Test 4 (6 lectures)	DiResta	C-20
11/19 R	Test 4 to be given at 6:30pm online [100 points]	DiResta	L 21-28 C11,12,15,16,18,20
11/23 M	Last day of semester		online
11/24 T	Reading day		
	THANKSGIVING WEEK – Nov 23 – Dec 1st		
12/10 T	Final Exam (100 points) Scheduled on TUES, Dec 10, 2019 @ 2:00pm online		

Faculty & Offices:

Professor Daniel DiResta	Cox Sci Bldg. room 233	x 8-1715
Professor Charles Mallery	Merrick Bldg. room 304	x 8-3188

TEXTBOOK: Lecture: **Essential Cell Biology** by Alberts et al, **5th edition**
ISBN 13: 978-0-8153-4454-4.
Hardcover: 726pg, ©2014

MAKEUP EXAMS:

University policy on makeup exams: they can only be offered if a student has:

1. participated in an activity approved by the Dean's Policy Council
2. attended a field trip of another course or if a student has been confined to the Health Center.

If one misses a test for any other reason, it will be the lowest test score that is dropped.

No other excuses will be accepted unless you see Dr. DiResta or Dr. Mallery before an exam date. The make-ups will be essay type or oral exam and will have a degree of difficulty greater than normal.

ACADEMIC ETHICS: To protect the academic integrity of the University of Miami, to encourage consistent ethical behavior among undergraduate students, and to foster a climate of fair competition it all students are bound by the Honor Code. It is assumed that during your virtual testing you will work independently with no supplemental material and will not cheat. All undergraduate students are responsible for reading, understanding, and upholding the Honor Code. Students are expected to warn fellow students who do not appear to be observing proper ethical standards and to report violations of this Code. Cheating of any form will not be tolerated. The absence of a signed pledge does not free a student from the ethical standards set by this Code. The Biology Department has adopted the policy that the penalty for cheating, plagiarism, or acquiescence in then shall result in Failure of the course.

CLASS ATTENDANCE is not mandatory, however, *it will be very difficult to perform well without regularly attending class*. There will be some material covered in class not covered elsewhere. In addition, there may be quizzes or other material that you cannot make up. We strongly urge you to attend every class.

GRADING:

The course grade is based upon **4 lecture exams** (100 points each) given throughout the semester (see the syllabus schedule). Throughout the semester there will also be **in class quizzes**, whose point value will total the equivalent of one lecture test (**100 points**). The **lowest score** of the 4 lecture test or the quizzes score **will be dropped**. The final exam will be **comprehensive** and worth 200 points (100 multiple choice questions). The total possible points for the course is **600 points**. The **grading scale** for the course is given below:

<u>Score range:</u>	<u>Percentage range:</u>	<u>Letter grade:</u>
≥ 582	97 to 100	A+
558 - 581	93 to 97	A
540 - 557	90 to 93	A-
522 - 539	87 to 90	B+
498 - 521	83 to 87	B
480 - 497	80 to 83	B-
462 - 479	77 to 80	C+
438 - 461	73 to 77	C
420 - 437	70 to 74	C-
402 - 419	67 to 70	D+
378 - 401	63 to 67	D
360 - 377	60 to 64	D-
< 360	0 to 60	F