

# BIO 3302.001: EUKARYOTIC MOLECULAR & CELL BIOLOGY

*The University of Texas at Dallas*

Fall, 2016

Ver. 1.0

**TEXT:** Lodish *et al.*, *Molecular Cell Biology*, Seventh Edition, 2013 (ISBN 13: 978-1-4292-3413-9)

**CLASS HOURS:** Monday and Wednesday, 11:30 -12:45 pm, JO 3.516

**Dr. John. G. Burr:** Office: FN 3.110                      Hours: Fri: 3:30-4:30 pm, or by appointment  
Phone: 972-883-2508                      Email: burr@utdallas.edu

**Dr. Uma Srikanth:** Office: FO 3.108                      Hours: Mon 10:00 – 11:00 am.  
Phone: 972-883-6570                      Email: ukrish@utdallas.edu

## Course Materials

**Dr. Srikanth's** course material and grades will be posted on eLearning.

**Dr. Burr** does **not use** eLearning; his course information and grades will instead be posted at:  
<http://www.utdallas.edu/~burr/BIO3302>

## TAs for workshops (BIO 3102):

Section #	Time/Location	TA Name
3102-001	Mon. 8:00-8:50 am/ FN 2.106	Ms Sheila Chandahas
3102-002	Tue. 8:30-9:20 am/ FN 2.106	TBA
3102-003	Thurs. 8:30-9:20 am / SLC 3.102	Mr. Hey Minh Lee
3102-004	Thurs. 8:30-9:20 am / FO 3.222	Mr. Khanh Nguyen

*All students enrolled in BIO 3302 must also enroll in a workshop (BIO 3102). The grade for BIO 3102 will be determined by a combination of attendance and homework (or in class quiz) grades, and it will be worth 10% of the overall grade given for BIO 3302. The same letter grade will be assigned for both the lecture and workshop components of the course. Do not blow off the workshop- it can drop your grade in the lecture part of the course (BIO 3302) from an A to a B, or from a B to a C, etc. if you do poorly in the workshop. The same grade will be assigned for both BIO 3301 and BIO 3302. **If you drop the course, you must drop both 3302 and 3102. Also you must enroll only in workshops 001-004 for the Burr/Srikanth lecture course (BIOL 3302.001)***

*There will be four exams given in BIO 3302. The exam questions will be a combination of multiple-choice plus brief essay or short-answer questions. Each of the four exams will be worth 22.5% of the final grade, and each will cover all of the material presented in class since the previous exam (lectures, handouts, and assigned reading), for a total of 90%. The remaining 10% of your grade is from the workshops- homeworks, quiz etc. Scoring on the exams is done by the Teaching Assistants, but the Instructor determines in advance what key points must be included in each answer to get full credit. The Instructor checks your scores after the TA has graded the exams, and assigns letter grades.*

*If you have questions about the grading or your performance in an exam, please see the instructors as soon as possible. Although letter grades may be provided after each exam, these should be treated only as a reflection of your performance. **The final course grade will be based not on these individual letter grades, but on the total of the numeric scores of all four exams and the homework.***

**Workshops will begin on Monday, August 29, 2016.**

*See reverse side for schedule of lectures*

## SCHEDULE OF LECTURES

Bio 3302, Fall 2016

Dates	Session	Instructor	Topics	Reading
Mon, Aug 22	1	Srikanth	Introduction & Biomolecules	Chapter 2
Wed, Aug 24	2	Srikanth	Cell Biology Techniques	Chapter 9
Mon, Aug 29	3	Srikanth	Cell Biology Techniques	Chapter 9
Wed, Aug 31	4	Srikanth	Biomembrane Structure	Chapter 10
<b>Mon, Sept 5</b>	--	--	Labor day Holiday	
Wed, Sept 7	5	Srikanth	Biomembrane Structure	Chapter 10
Mon, Sept 12	6	Srikanth	Transport of Ions and Small Molecules	Chapter 11
Wed, Sept 14	7	Srikanth	<b>Review</b>	
<b>Mon, Sept 19</b>	<b>8</b>	<b>Srikanth</b>	<b>EXAM 1 (Chapters parts of 2, 9, 10, and 11)</b>	
Wed, Sept 21	9	Srikanth	General Principles of Signaling	Chapter 15
Mon, Sept 26 Wed, Sept 28	10, 11	Srikanth	G protein coupled Signaling	Chapters 15
Mon, Oct 3 Wed, Oct 5	12,13	Srikanth	Signaling pathways that control Gene Expression and Review	Chapter 16
Mon, Oct 10	14	Srikanth	Signaling pathways and Review	Chapter 16
<b>Wed, Oct 12</b>	<b>15</b>	<b>Srikanth</b>	<b>EXAM 2 (on material in sessions 9-14)</b>	
Mon, Oct 17 Wed, Oct 19	16, 17	Burr	Moving proteins into membranes & organelles	Chapter 13
Mon, Oct 24 Wed, Oct 26 Mon, Oct 31	18, 19, 20	Burr	Vesicular traffic, secretion & endocytosis	Chapter 14
Wed, Nov 2 Mon, Nov 7	21, 22	Burr	Cytoskeleton: actin filaments in muscle cells	Chapter 17
Wed, Nov 9	23	Burr	Cytoskeleton: actin filaments in non- muscle cells (1)	Chapter 17
<b>Mon, Nov 14</b>	<b>24</b>	<b>Burr</b>	<b>EXAM 3 (Chapters 13 &amp; 14; part of Ch 17: Actin in muscle cells)</b>	
Wed, Nov 16	25	Burr	Actin filaments in non- muscle cells (2)	Chapter 17
<b>Nov 21-23</b>	--	--	<b>Fall Break</b>	--
Mon, Nov 28	26	Burr	Regulation of actin polymerization in vitro	Chapter 17
Wed, Nov 30 Mon, Dec 5	27, 28	Burr	Microtubules; intermediate filaments	Chapter 18
<b>Wed, Dec 7</b>	<b>29</b>	<b>Burr</b>	<b>EXAM 4 (Ch 17: Actin in non-muscle cells, etc; Ch 18: MT's, IF's)</b>	

**(There will be no additional exam for the course given during Finals Week.)**

**Make- up EXAMS**

*These exams will be scheduled on a need only basis. If you are unwell and unable to attend the exam, please email the instructor at the earliest available opportunity. Also, please remember to bring a copy of the doctor's note on the day your make-up exam is scheduled. These exams will be scheduled to the convenience of the teaching assistants (graduate) or the instructor.*

**EXAM VIEWING OFFICE HOURS:**

*Instructors will send announcements on elearning about office hours for viewing exams after they have been graded. Please be sure to come and visit the instructor during these hours. If the allotted time is in conflict with your classes, please email instructor in advance for an alternate time. No grade changes will be made three weeks after the date of the exam.*