

# BIOL 3302: EUKARYOTIC MOLECULAR & CELL BIOLOGY

The University of Texas at Dallas

Spring, 2013

Ver. 1.0

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

Or: Sixth Edition, 2008 (ISBN 0-7167-7601-4)

**CLASS HOURS:** Monday and Wednesday, 11:30 -12:45 pm, FN 2.102 (Polykarp Kush Auditorium)

**Dr. John. G. Burr:** Office: FN 3.110  
Phone: 972-883-2508

Hours: Thurs: 3:30-4:30 pm, or by appointment  
Email: burr@utdallas.edu

**Dr. Uma Srikanth:** Office: FN3.202  
Phone: 972-883-6570

Hours: Wednesday 9:30 – 10:30 AM  
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)<sup>1</sup>:

Section #	Time/Location	TA Name
3102-001	Fri. 8:00-8:50 am/FO3.616	SAMIT PATEL
3102-002	Fri. 8:00-8:50am/SLC 2.203	RISHI PATEL
3102-003	Wed. 4:00-4:50 pm/FO3.616	MELIA WILLIAMS
3102-004	Wed. 4:00-4:50 pm/FO 3.222	TASFIA/POOJA
3102-005	Tue. 4:00-4:50 pm/FN 2.106	CHRISTINE SONG
3102-006	Tue. 4:00- 4:50 pm / CB3 1.310	CINDY NG

All students enrolled in BIOL 3302 must also enroll in a workshop (**BIOL 3102**). The grade for BIOL 3102 will be determined by a combination of attendance and homework grades, and it will be worth **10%** of the overall grade given for BIOL 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 (BIOL 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 BIOL 3301 and BIOL 3302. If you drop the course, you must drop both 3302 and 3102.**

There will be four exams given in BIOL 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, etc. Scoring on the exams is done by the graduate 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.**

*See reverse side for schedule of lectures*

<sup>1</sup> All students enrolled in BIO 3302 must also enroll in a workshop (BIO 3102). If for any reason you decide to drop the BIO 3302, you must also drop BIO 3102!

## SCHEDULE OF LECTURES

Bio 3302, Spring 2013

Dates	Session	Instructor	Topics	Reading
Mon, Jan 14	1	Srikanth	Introduction and Culturing and Visualizing Cells	Chapter 9
Wed, Jan 16	2	Srikanth	Visualizing Cells, Cell Biology Techniques	Chapter 9
<b>Mon, Jan 21</b>	--	--	<b>MLK Holiday</b>	--
Wed, Jan 23	3	Srikanth	Biomembrane Structure	Chapter 10
Mon, Jan 28	4	Srikanth	Biomembrane Structure	Chapter 10
Wed, Jan 30	5	Srikanth	Transport of Ions and Small Molecules	Chapter 11
Mon, Feb 4	6	Srikanth	Transport of Ions and Small Molecules	Chapter 11
<b>Wed, Feb 6</b>	<b>7</b>	<b>Srikanth</b>	<b>EXAM 1 (Chapters 9, 10, 11)</b>	
Mon, Feb 11	8	Srikanth	General Principles of Cell Signaling	Chapter 15
Wed, Feb 13	9	Srikanth	G protein coupled Signaling	Chapter 15
Mon, Feb 18, Wed, Feb 20	10, 11	Srikanth	G protein coupled Signaling & Signaling pathways that control Gene Expression	Chapters 15 & 16
Mon, Feb 25, Wed, Feb 27, Mon, Mar 4	12, 13, 14	Srikanth	Signaling pathways that control Gene Expression Integrating Cells into tissues	Chapter 16 Chapter 20
<b>Wed, Mar 6</b>	<b>15</b>	<b>Srikanth</b>	<b>EXAM 2 (Chapters 19, 15, 16)</b>	
<b>M – F Mar 11-16</b>			<b>SPRING BREAK HOLIDAY</b>	
Mon, Mar 18, Wed, Mar 20	16, 17	J. Burr	Moving proteins into membranes & organelles	Chapter 13
Mon, Mar 25 Wed, Mar 27 Mon, Apr 1	18, 19, 20	J. Burr	Vesicular traffic, secretion & endocytosis	Chapter 14
Wed, Apr 3, Mon, Apr 8	21, 22,	J. Burr	Cytoskeleton: actin filaments in muscle cells	Chapter 17
Wed, Apr 10	23	J. Burr	Cytoskeleton: actin filaments in non- muscle cells (1)	Chapter 17
<b>Mon, Apr 15</b>	<b>24</b>	<b>J. Burr</b>	<b>EXAM 3 (Chapters 13 &amp; 14; part of Ch 17: Actin in muscle cells)</b>	
Wed, Apr 17	25	J. Burr	Cytoskeleton: actin filaments in non- muscle cells (2)	Chapter 17
Mon, Apr 22	26	J. Burr	Regulation of actin polymerization in vitro	Chapter 17
Wed, Apr 24; Mon, Apr 29	27, 28	J. Burr	Microtubules; intermediate filaments	Chapter 18
Wed, May 1	<b>29</b>	<b>J. Burr</b>	<b>EXAM 4 (Ch 17: Actin in non-muscle cells, etc; Ch 18: MT's, IF's)</b>	