

SYLLABUS

Course number: BIOL 3090, **Section number:** 1, **Course title:** Cell Biology, **Credit hours:** 3
Time: 10:30 am -11:50 am, **Days:** Tuesday and Thursday, **Room:** 204 Tureaud Hall

Instructor: Naohiro Kato, Ph.D.

Associate Professor, Department of Biological Sciences, LSU

Office: Room 226, Life Sciences Building, LSU, Baton Rouge, LA

Office Hours: By appointments (Monday to Friday 9 am – 5 pm)

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Course Objective:

The objective of this course is to understand the structures and functions of molecules in cells. VISION AND CHANGE IN UNDERGRADUATE BIOLOGY EDUCATION: A VIEW FOR THE 21ST CENTURY (<http://visionandchange.org>), which is proposed by the American Association for the Advancement of Science with support from the National Science Foundation (NSF), sets the disciplinary practice of the course. At the end of the course, students will gain:

1. ability to **analyze** and understand cellular functions **quantitatively**, and
2. ability to develop molecular-based strategies of medications by looking at data in peer-reviewed scientific articles in cell biology journals.

Textbook:

Lodish *et al.*, *Molecular Cell Biology*, 7th edition, ISBN 978-1-4292-3413-9

Lecture Goals and Homework Assignment:

I require you to do homework that may take 2 – 3 hours before each lecture. Note that describes homework assignment will be posted in Moodle a week before the lecture. The note contains information of homework quiz that will be given in the lecture. It also contains goals of the lecture and assessment methods used in the examination.

Notebook:

Notebook used in classroom will be posted at Moodle in the week of the lecture.

Student Response System (Clickers): *Mandatory*

All students **must have the clicker** (Approximately \$44). Clickers will be used to assess complementation of homework assignment. Go to the LSU Bookstore and purchase the Clicker (Product ID is RCRF-02). Personal assistance is available at **LSU ITS HELP DESK** (225.578.3375).

Moodle website:

<http://moodle2.lsu.edu>

Examinations (500 points):

Four exams will be given in class. The exams will have a combination of multiple choices, True/False, drawing, and short essays. Each exam (expect the final exam) will be worth 100 points and include material covered since the previous exam. ***The final exam will be worth 200 points and include all materials covered in the course.***

Use of electronic devices:

Electronic devices including cellphones and tablets, except Student Response System, should not be accessible to you or others during class and exams.

Make-up Exam:

The make-up exam will be given only when an *official documentation* is provided that clearly indicates circumstances beyond a student's control. A note from a friend or family member is not acceptable documentation. By providing a written acceptable explanation *prior* to missing the exam, a student may be able to obtain an approval for the make-up from the instructor.

Grading:

Your final grade will be based on your *cumulative* points.

Homework Assignment (100 points) + Examinations (500 points)

A: Equal to or above 540 points ($\geq 90\%$ of the total point)

B: Equal to or above 450 points ($\geq 75\%$ of the total point)

C: Equal to or above 360 points ($\geq 60\%$ of the total point)

D: Equal to or above 300 points ($\geq 50\%$ of the total point)

F: Below 300 points ($< 50\%$ of the total point)

Dropping the course:

The finale date of the dropping the course is 4:30 pm, November 7, 2014. A student may withdraw from the class on and before 4:30 pm, September 3, 2014 without receiving a grade of "W".

Course Legal Statements:

Equal Opportunity:

All qualified students have equal opportunity in class without regard to race, creed, color, marital status, sexual orientation, religion, sex, national origin, age, or veteran's status.

Disabilities:

A student having learning disabilities must consult Office of Disability Services (<http://disability.lsu.edu/>).

Academic Integrity and Civility:

Code of Student Conduct issued by the Office of the Chancellor (<http://saa.lsu.edu/code-student-conduct>) is applied.

Memo:

Fall 2014, BIOL3090 Section 1 Tentative Schedule

Date	Class	Module	Topics	Chapters in Lodish 7e
August 26, 2014 Tuesday	Class 1		Orientation	-
August 28, 2014 Thursday	Assessment exam	-	10:30 - 11:50 am, 204 Tureaud Hall	-
September 2, 2014 Tuesday	Class 2	1	Celluar Dynamics	17
September 4, 2014 Thursday	Class 3	1	Celluar Dynamics	17
September 9, 2014 Tuesday	Class 4	2	Origin of Cell	10
September 11, 2014 Thursday	Class 5	2	Origin of Cell	10
September 16, 2014 Tuesday	Class 6	-	Exam Guide & Self Assessment	-
September 18, 2014 Thursday	1st-Q Exam	-	10:30 - 11:50 am, 204 Tureaud Hall	-
September 23, 2014 Tuesday	Class 7	-	Exam reiew	-
September 25, 2014 Thursday	Class 8	3	Gene Expression and Proteins	1 - 8
September 30, 2014 Tuesday	Class 9	3	Gene Expression and Proteins	1 - 8
October 2, 2014 Thursday	Fall holiday	-	No Class	-
October 7, 2014 Tuesday	Class 10	4	Vesicle Transport	14
October 9, 2014 Thursday	Class 11	4	Vesicle Transport	14
October 14, 2014 Tuesday	Class 12	-	Exam Guide & Self Assessment	-
October 16, 2014 Thursday	Mid-Semester Exam	-	10:30 - 11:50 am, 204 Tureaud Hall	-
October 21, 2014 Tuesday	Class 13	-	Exam reiew	-
October 23, 2014 Thursday	Class 14	5	Receptor-Ligaind Interaction	15
October 28, 2014 Tuesday	Class 15	5	Receptor-Ligaind Interaction	15
October 30, 2014 Thursday	Class 16	6	Signaling Pathway	16
November 4, 2014 Tuesday	Class 17	6	Signaling Pathway	16
November 6, 2014 Thursday	Class 18	-	Exam Guide & Self Assessment	-
November 11, 2014 Tuesday	Third-Q Exam	-	10:30 - 11:50 am, 204 Tureaud Hall	-
November 13, 2014 Thursday	Class 19	-	Exam reiew	-
November 18, 2014 Tuesday	Class 20	7	Cell Cycle	19
November 20, 2014 Thursday	Class 21	7	Cell Cycle	19
November 25, 2014 Tuesday	Class 22	8	Molecular Cell Biology in Cancer Treatment	24
November 27, 2014 Thursday	Thanksgiving holiday	-	No Class	-
December 2, 2014 Tuesday	Class 23	8	Molecular Cell Biology in Cancer Treatment	24
December 4, 2014 Thursday	Class 24	-	Exam Guide & Self Assessment	-
December 9, 2014 Tuesday	Final Exam	-	5:30 - 6:50 pm, 204 Tureaud Hall	-