

BIO 3813-02 Cellular Biology Syllabus
Fall 2007; T/Th 8:00-9:45 am; HS 2-01-44

Instructor: Mr. Richard Taylor, MS

Office: SB 4-02-58 Tel: 458-6259 Office hours: M/W, T/Th 7:00-7:50 am, 9:30-10:45 am or by appointment
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Required Text: Molecular Cell Biology by Lodish et al, 5th ed. & assigned literature. The text is thorough and in depth and the lecture presentations will normally limit the focus to specific, critical material. Lecture outlines and power point presentations will be available on WebCT prior to class, with the expectation that the student will use them as note-taking guides. When sources other than the text are used access to the relevant material will be posted to WebCT or made through library e-journals.

Prerequisites: Biochemistry, Physiology. Genetics is highly recommended.

Course Description/Objectives: The course will be an introductory course on cell biology focusing on the structural, molecular, and genetic principles and processes involved in cells (and tissues). Discussions will include descriptions of the main elements of cells; processes involved in cell growth, movement, survival, death, and reproduction and their regulation; interactions between cells; and abnormalities in cell processes.

Students will be expected to show a thorough grasp of the critical elements of cell biology by responding accurately to questions of fact about details of the structures and processes of the cell.

Grading: 4 exams; course grade will be average of 3 highest exam grades:

Any missed exam will count as lowest exam grade

Exam schedule: (Subject to change by the lecturer if necessary)

Exam 1: Sep 18
Exam 2: Oct 11
Exam 3: Nov 6
Exam 4: Dec 6 (Thu), 7:30-9:30

Exams will consist of multiple choice, true/false, matching, one essay question and will include figures presented in class. Exam 4 is not comprehensive. Students are expected to take exams during the scheduled date and time. Makeup exams are at the discretion of the instructor and will be allowed only when **serious** circumstances intervene and documentation is provided. The makeup exam will be an essay exam and will be substantially different from the scheduled exam. Students will be responsible for retaining graded material once it is returned in order to reconstruct the grade book in the event of an emergency. Drop day is Tuesday, Oct 23.

The student code of conduct will apply to this course.

Class Schedule (subject to change by lecturer if necessary)

	Chapter
(8/23) Introduction & chemical foundations	1-2
(8/28) Proteins	3
(8/30, 9/4) Biomembranes & cell architecture	5
(9/6) Membrane Transport	7
(9/11, 9/13) Proteins into Membranes	16
(9/18) Exam I	
(9/20) Vesicular traffic	17
(9/25, 9/27) Basic Genetic Mechanisms	4
(10/2) Genes & Chromosomes	10
(10/4, 10/9) Transcriptional Control	11
(10/11) Exam 2	
(10/16) Post-transcriptional Control	12
(10/18, 10/23) Microfilaments, myosin	19
(10/25) Microtubules	19
(10/30) Dynein, Kinesin	20
(11/1) Cell Signaling & Signal Transduction	13-14
(11/6) Exam 3	
(11/8) Cell Signaling & Signal Transduction	13-14
(11/13) Cell Cycle Control	21
(11/15) DNA Recombination & Repair	10, 23
(11/20) Cell Birth & Death	22
(11/22) Thanksgiving	
(11/27, 11/29) Cells & Tissues	6
(12/3-4) Dead Days	
(12/6; 7:30-9:30) Exam 4	