

Dr. Vered Mirmovitch; Instructor

Fall 2013

Wednesday 6:45-10:00 PM

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Sec. #3394 MSA 005

OFFICE HOURS: 6:15-6:45 [MSA 005] or by appointment

BIOLOGY 3-A LECTURE

Course Description: This is a course in general biology designed to fulfill a laboratory science requirement and will also provide a foundation for advanced courses in biology, including human anatomy, physiology, and microbiology. The lecture portion of the course emphasizes the basic principles in biology, cell structure and function, and the levels of organization in the human body. Lecture topics include the scientific method, biological chemistry, cellular respiration, photosynthesis, heredity, molecular genetics, evolution & ecology.

The laboratory portion of the course includes an introduction to the microscope, detailed study of cells and tissues, a survey of the microorganisms, plants, and animals that comprise the 5 Kingdoms of life, and a detailed dissection and study of the fetal pig. Emphasis is on critical analysis and the diversity of life.

The Biology 3-A Lecture meets 3 hours per week and is a 3-unit course.

The Biology 3-B Lab meets 3 hours per week and is a 1-unit course.

You will receive a separate grade for each.

It is not necessary to have the same instructor for both.

We recommend that you take both the same semester.

Student Learning Objectives: A student who completes this class will be able to explain:

- (1) the scientific method, its applications & limitations
- (2) the principal characteristics of living organisms
- (3) the levels of organization of matter, from atoms to biomes
- (4) the mechanisms of evolutionary adaptation
- (5) the principal categories of chemicals that make-up living organisms
- (6) the production of energy by cells and how it is used
- (7) interrelationships of organisms with each other and the environment
- (8) how cells reproduce and how organisms reproduce
- (9) the inheritance & transmission of different genetic traits
- (10) the structure & action of genes

(11) the structure & function of the different organ systems in the body

Required & Recommended Books:

S.A. Fink; Biology Lecture Outline; BioBooks Pub.; 2008

**S. Mader; Biology; Inquiry Into Life; McGraw-Hill Publishers;
2011 (13th ed) [ISBN 978-0-07-340344-1]**

Student Study Guide for Mader's Biology; McGraw-Hill Publishers;
[ISBN 978-0-07-298680-8]

Lecture Examination Schedule (Tentative):

EXAMINATION 1.....	September 25 (Wed)
EXAMINATION 2.....	October 23 (Wed)
EXAMINATION 3.....	November 13 (Wed)
FINAL EXAMINATION..... (comprehensive)	December 11 (Wed)

Computation of Course Grade:

2 (of 3) Examinations.....	60% of Course Grade
Final Examination.....	40% of Course Grade

Assuming you take all 3 lecture examinations, the lowest one will be dropped, and the average of the 2 highest will count 60% towards your Course Grade. About 40% of the questions on the Final Exam will come from the previous 3 lecture exams.

All examinations will consist of objective-type questions (ie., True/False; Multiple Choice; and Matching questions) that will be answered on **SCAN-TRON (882) forms**. You will be expected to provide SCAN-TRON 882 forms (available at the bookstore) and a **soft lead no. 1 pencil with a good eraser** for each examination for computer scoring. The Final Examination is comprehensive for the entire semester. **There are no make-up examinations.**

Grading Policy:

89 - 100%	A
77 - 88%	B
62 - 76%	C
50 - 61%	D
below 50%	F

Practice Quizzes & Exams & Videos:

<http://www.professorfink.com>

http://highered.mcgraw-hill.com/sites/007340344x/student_view0/index.html

http://www.uwgb.edu/markerj/P_QZ/Humbio_QZ/QZ_PAGE.HTM

http://www.mhhe.com/biosci/genbio/maderbiology7/student_index.mhtml

Attendance Policy:

Roll will be taken. There is a strong correlation between poor attendance and poor grades. **You are responsible for information, exam announcements, date changes, etc. presented in class, whether or not you are present.**

Students who are given add slips must complete the process by the 3rd class meeting (June 19). No replacement add slips will be signed.

Withdrawal from Class:

You are responsible for your credit and enrollment status. Any student withdrawing from class must inform the admissions office of this decision. **Students failing to follow the correct procedure for withdrawals will receive a grade of "F" for the semester. No withdrawals are permitted after Friday, November 15.**

(see Schedule, page 1.)

Cheating/Academic Dishonesty:

Each student is expected to do his/her own work on all assignments, reports, examinations, etc. **CHEATING ON AN EXAM WILL RESULT IN AN "F" FOR THE COURSE.**

Here is a list of some actions that are considered cheating:

NO TALKING DURING THE EXAM.

KEEP YOUR EYES ON YOUR OWN EXAM.

USING NOTES OF ANY KIND (ON CARDS, STRIPS OF PAPER, DESK TOP, ETC.) DURING AN EXAM IS NOT PERMITTED.

Showing a fellow student your exam, or passing information in any way is not permitted.

Place your answer sheet(s) directly in front of you.

If you have a question, quietly walk up to the instructor and whisper your question.

Translation dictionaries are not permitted.

Changing the answers on a returned Exam & claiming it was scored wrongly.

All of these demonstrate a lack of Honesty & Integrity which is Essential in all jobs, all relationships, & in all Areas of Life.)

Recommendations for Succeeding in Class:

- 1. Expect to Work. This is not supposed to be easy.**
- 2. Get to class on time, every time, and stay the whole time.**
 - Never miss class unless you're dead, & take good notes.
- 3. Find someone in the class to contact if you miss a meeting.**
- 4. Be organized! Use a daily calendar to set times for regular studying for each of your classes.**
- 5. Study & Review each night the class is given.**
 - Learning is easier if you schedule time daily to read, to think & review.
 - Every time you study. spend at least 10 minutes reviewing previous lessons. (These "refresher shots" are the secret for long-term memory.)
 - Focus your studying on the class Lecture Notes.
 - Read the relevant chapters in your textbook; hi-lite pertinent lines, & add these notes to your class notes (never read without writing).
 - Use the CD-ROM & Web-Sites.
 - Use associations to help you remember things.
 - Prepare note cards and carry them with you to review.
- 6. Increase your studying 1 week before a scheduled Exam!!**
- 7. Anything you turn-in (exams, lab reports) should look neat.**

TENTATIVE SCHEDULE OF TOPICS

(schedule subject to change)

Week	Date	Lecture Topic	Mader Textbook
1	AUG 28	Introduction Scientific Method Scientific Method Characteristics of Living Organisms Evolution by Natural Selection	chapter 1 Chapter 27 pp. 545-558; 562-564
2	SEP 4	<u>NO CLASS:</u> ROSH HASHANNA [FRIDAY Sep 6: Last Day to Avoid a "W" on Permanent Record	
3	SEP 11	Evolution by Natural Selection Atoms & Molecules Radioactive Dating Thyroid Gland	Chapter 27 Pages 545-558; 562-564 chapter 2 page 22 & page 547 page 400
4	SEP 18	Atoms & Molecules Radioactive Dating Thyroid Gland Organic Compounds	chapter 2 page 22 & page 547 page 400 chapter 2 pages 271-273
5	SEP 25	<u>EXAMINATION 1</u> Atoms & Molecules Radioactive Dating Thyroid Gland Organic Compounds	chapter 2 page 22 & page 547 page 400 chapter 2 pages 271-273

TENTATIVE SCHEDULE OF TOPICS

(schedule subject to change)

Week	Date	Lecture Topic	Mader Textbook
6	OCT 2	Organic Compounds Hormones Structure of ATP Structure of DNA	chapter 2 pages 271-273 pages 396-398 page 40 & page 102-3 pages 39-40
7	OCT 9	Cell Structure Transport Across the Cell Membrane Autolysis (Apoptosis) Endosymbiont Theory Biochemical (Metabolic) Reactions & Enzymes	chapter 3 chapter 4 p. 82-83 p. 63 chapter 6
8	OCT 16	Biochemical (Metabolic) Reactions & Enzymes Coenzymes Photosynthesis	chapter 6 pages 276-277 chapter 8
9	OCT 23	<u>EXAMINATION 2</u> Photosynthesis Vision Cellular Respiration	chapter 8 pages 351-355 chapter 7
10	OCT 30	Cellular Respiration Regulation of the Blood Sugar level Ecosystems	chapter 7 page 403 chapter 34

TENTATIVE SCHEDULE OF TOPICS
(schedule subject to change)

Week	Date	Lecture Topic	Mader Textbook
11	NOV 6	Ecosystems	chapter 34
		Biomes	chapter 35
		Fossil Fuels	p. 715
12	NOV 13	<u>EXAMINATION 3</u>	
		Reproductive System	chapter 21
		Cell Division	pages 404
		Chromosome Anomalies	pp. 85-89 & 90-98
		<u>[LAST DAY TO DROP:</u>	pp. 492-495
		<u>FRIDAY NOVEMBER 15</u>	
13	NOV 20	Reproductive System	chapter 21
		Cell Division	pages 404
		Chromosome Anomalies	pp. 85-89 & 90-98
		Genetics	pp. 492-495
			chapter 26
			pages 526-531
			page 544
			chapter 23
			pages 534-540
14	NOV 27	Genetics	chapter 23
		Molecular Genetics	pages 534-540
		Viral Infections	chapter 25
			p. 544
			Pages 590-596

TENTATIVE SCHEDULE OF TOPICS

(schedule subject to change)

Week	Date	Lecture Topic	Mader Textbook
15	DEC 4	Viral Infections Cancer The Immune System Molecular Genetics	Pages 590-596 Pages 517-520 chapter 13 pages 534-540 chapter 26
16	DEC 11	<u>FINAL EXAM</u>	