Fundamentals of Life Science II

BIOL 2170-002 - Spring 2010

Classes: MW from 4:00-5:40 p.m. in DC1019

Instructor

Robert Steven
WO3235
x7890
robert.steven2@utoledo.edu
Hrs: M 10-11 am & Th 11-12:30 pm

Course Description

A requirement for biology majors this course is the second half of a general introduction to the fundamentals of life science. Topics of discussion will include cell structure and function, energy processing in plants and animals, basic genetics, and molecular biology.

Required Text

Life: The Science of Biology (Eighth Edition), Sadava, Heller, Orians, Purves and Hillis editors. (ISBN 978-0-7167-7671-0). The new ninth edition is NOT required.

General Information

- CHEM 1090 or a CHEM placement score of 20 or BIOL 2150 is a prerequisite for this course.
- This course is web assisted: lecture slides will be available for download before class.
- Please ask questions during the lecture if you feel something was not explained clearly. You also have the option of asking questions by email or discussing the topics during my office hours.
- Please turn OFF cell phones while in the class.
- Please do not bring food into the room, although a drink is acceptable.

Student Evaluation

- There will be four one hour in-class exams during the semester and each will be worth 100 points. The in-class exams will cover only new material (since the last test). Test questions will be based on the lecture material and assigned readings from the textbook.
- The final exam (two hours in length) will be comprehensive and worth 200 points. Approximately half of the exam will cover the last section of the course while the remaining half of the exam will cover the earlier sections of the course.
- Your final grade will be calculated from your best three of the four in-class exams (20% of your final grade for each) plus the final comprehensive exam (40% of your final grade).
- All exams will consist of multiple-choice questions.
- There will be NO make-up exams. If you miss an exam the results from your other exams will be used to determine your grade.
- Note that a make-up final exam will only be provided for serious medical or personal reasons.

Grading Scale:		
	90-100%	A
	87-89%	A-
	83-86%	B+
	79-82%	B
	75-78%	B-
	71-74%	C+
	67-70%	C
	63-66%	C-
	59-62%	D+
	55-58%	D
	50-54%	D-
	<50%	F

Exam Information

- Bring two #2 pencils and an eraser to the exams.
- Students will be asked to present a picture ID when turning in their exam.
- In class exams will be one hour in length. Additional time will not be given to students who come late for exams.
- All the exams must be taken at the scheduled time with the section for which you are officially registered.
- Do not talk to other students or use electronic devices during the examinations. Keep your eyes on your own work. Those that violate these rules will receive an F grade for the exam.
- If the university is closed on the day of a scheduled exam, the exam will be given during the next scheduled class.

Keys to Success

1. Attend every class. Material presented during class will be emphasized for the exams.
2. Be active with your studying. Taking notes during class, reading the textbook (preferably before the class) and making your own study notes will aid in your ability to understand and retain the presented concepts.
3. Do not wait until a day or two before the exam to study. Go over your notes as often as you can between exams and make sure you understand the material. Ask me questions about topics you don't understand as soon as possible, either during the lecture or during my office hours.
4. Test yourself. Have a roommate or classmate ask you questions about the material in your notes. Take the online quizzes.
5. Form a study group. It helps with number 4 above and you will find out how well you know the material when you try to explain it to someone else.

Course Schedule

Date	Lecture	Topic	Chapter
Jan 11	1	Syllabus/Chemistry of Life	2
Jan 13	2	Macromolecules	3
Jan 18		*Martin Luther King Holiday*	
Jan 20	3	Macromolecules	3
Jan 25	4	Cells: The Working Units of Life	4
Jan 27	5	Cells: The Working Units of Life	4
Feb 1		**Exam I**	
Feb 3	6	The Dynamic Cell Membrane	5
Feb 8	7	The Dynamic Cell Membrane	5
Feb 10	8	Energy, Enzymes and Metabolism	6
Feb 15	9	Energy, Enzymes and Metabolism	6
Feb 17	10	Pathways That Harvest Chemical Energy	7
Feb 22		**Exam II**	
Feb 24	11	Pathways That Harvest Chemical Energy	7
Mar 1	12	Photosynthesis: Energy From Sunlight	8
Mar 3	13	Photosynthesis: Energy From Sunlight	8
Mar 8		*Spring Break*	
Mar 10		*Spring Break*	
Mar 15	14	Chromosomes, Cell Cycle, and Cell Division	9
Mar 17	15	Chromosomes, Cell Cycle, and Cell Division	9
Mar 22		**Exam III**	
Mar 24	16	Genetics: Mendel and Beyond	10
Mar 29	17	Genetics: Mendel and Beyond	10
Mar 31	18	DNA and It's Role in Heredity	11
Apr 5	19	DNA and It's Role in Heredity	11
Apr 7	20	From DNA to Protein: Genotype to Phenotype	12
Apr 12		**Exam IV**	
Apr 14	21	From DNA to Protein: Genotype to Phenotype	12
Apr 19	22	The Eukaryotic Genome and It's Expression	14
Apr 21	23	The Eukaryotic Genome and It's Expression	14
Apr 26	24	Recombinant DNA and Biotechnology	16
Apr 28	25	Recombinant DNA and Biotechnology	16
May 6		**Final Exam (2:45-4:45pm)**	

Other Important Dates:

Last day to add/drop: Jan. 19
Last day to withdraw: Feb. 12