



Short Syllabus



Course Title	Credits
Introduction to Biology A	4
Lecturer	
Marcelo Ehrlich, Ayala Lampel, Tsaffrir Zor, Vered Padler-Karavani	
Contact details	
Marcelo Ehrlich <marceloe@tauex.tau.ac.il>, Ayala Lampel <ayalalampel@tauex.tau.ac.il>, Tsaffrir Zor <tsaffryz@tauex.tau.ac.il>, Vered Padler-Karavani <vkaravani@tauex.tau.ac.il>	
Semester	
Fall	
Short Description	
<p>This course introduces students to the basic principles of cell biology and biochemistry. Topics covered include: basic chemistry principles and the macromolecules that build living organisms; enzymes, cell structure and function; energy production by the mitochondria and chloroplast; intercellular communication and signal transduction; the flow of genetic information – from gene to protein; molecular biology approaches in research, the cell cycle; Mendelian genetics.</p> <p>The course text book is <i>Biology</i> by Campbell. 11th edition:</p> <ol style="list-style-type: none">1. Chapter 2: The Chemical Context of Life. A Chemical Connection to Biology (AL)2. Chapter 3: Water and Life. The Molecule That Supports All of Life (AL)3. Chapter 4: Carbon and the Molecular Diversity of Life. Carbon: The Backbone of Life (AL)4. Chapter 5: The Structure and Function of Large Biological Molecules (AL)5. Chapter 5: The Molecules of Life (AL)6. Chapter 6: The Energy of Life (TZ)7. Chapter 7: A Tour of the Cell. The Fundamental Units of Life (TZ)8. Chapter 10: An Introduction to Metabolism, Cellular Respiration and Fermentation (TZ)9. Chapter 11: Photosynthesis (VPK)10. Chapter 8: Membrane Structure and Function (ME)11. Chapter 9: Cell Communication (ME)12. Chapter 12: The Cell Cycle (ME)13. Chapter 13: Meiosis and Sexual Life Cycles (ME)14. Chapter 14: Mendel and the Gene Idea (VPK)15. Chapter 15: The Chromosomal Basis of Inheritance (VPK)16. Chapter 16: The Molecular Basis of Inheritance (VPK)17. Chapter 17: Gene Expression: From Gene to Protein (TZ)18. Chapter 17: The Flow of Genetic Information (TZ)19. Chapter 18: Regulation of Gene Expression (TZ)20. Chapter 19: Genetic engineering (VPK)	
Final grade components	
Minor assignments: N/A.	



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Midterm:

In-class exam, 10% of the final grade.

Final requirement:

In-class exam, 90% of the final grade.

Participation:

N/A

Attendance

Attendance is mandatory. Students are permitted a maximum of three absences without penalty. Any additional absences will affect the final grade and may result in failure of the course.

Academic Conduct

Plagiarism is taken extremely seriously. Any instance of academic misconduct which includes: submitting someone else's work as your own; failure to accurately cite sources; taking words from another source without using quotation marks; submission of work for which you have previously received credit; working in a group for individual assignments; using unauthorized materials in an exam and sharing your work with other students, will result in failure of the assignment and will likely lead to further disciplinary measures.

Additional requirements

Empty box for additional requirements.