Course Code: BIO 101  
Title: Biology: A Gentle Introduction  
Instructor: Keren Ziv

Course Summary:
I encourage you to review the presentations prior to class, actively participate in class, and ask questions. This is critical for you and your colleagues to get the most out of your investment in this class. If there is a topic that you are very interested in and it is not covered at the class syllabus, please let me know and I’ll try my best to accommodate your wishes.

Please see course page for full description and additional details.

Grade Options and Requirements:
- No Grade Requested (NGR)  
  - This is the default option. No work will be required; no credit shall be received; no proof of attendance can be provided.
- Credit/No Credit (CR/NC)  
  - Score will be determined by student attendance (must attend 5 sessions) and participation.
- Letter Grade (A, B, C, D, No Pass)  
  - The presentation outlined in Session 6 will result in 100% of the student’s grade.

Please Note: If you require proof that you completed a Continuing Studies course for any reason (for example, employer reimbursement), you must choose either the Letter Grade or Credit/No Credit option. Courses taken for NGR will not appear on official transcripts or grade reports.

Tentative Weekly Outline:
Week 1 - Course overview, from cell to organism, the multi-cellular task (part 1)  
How do the different systems in our body work?  
Topics covered:  
  - Cardiovascular (Circulatory) System  
  - Lymph System

Week 2 - From cell to organism, the multi-cellular task (part 2)  
How do the different systems in our body work?  
Topics covered:  
  - Urinary system
• Respiratory System
• Reproductive system

Week 3 - The cell, the building block of our body
Topics covered:
• Cell structure and organelles
• The difference between a prokaryote and an eukaryote
• The difference between a plant cell and an animal cell
• DNA, RNA, and protein

Week 4 - Stem cells: How it all begins
Topics covered:
• Mitosis and meiosis
• Egg and sperm
• What is a stem cell? Totipotent/pluripotent stem cells, embryonic stem cells vs. adult stem cells, iPS
• The source of embryonic stem cells and why there is a debate about them
• The source of our organs: endoderm/mesoderm/ectoderm

Week 5 - Cancer, when the balance is disturbed
Topics covered:
• What is cancer?
• Does it have a genetic or environmental cause?
• What are the current approaches for cancer treatment, and why is it so hard to cure?

Week 6 - Regenerative medicine - Is the future already here? And students’ presentations
Topics covered:
• Why do we need regenerative medicine?
• What are the problems that we have?
• Examples for regenerative medicine
• In this last session you will present a 5-10 minute PowerPoint presentation detailing the aspects of a specific problem in biology (e.g., a disease), your view of the problem, and a cure.