

Study Objectives– Exam # 1

The student should be able to:

1. Discuss the reasons why people may live longer.
2. Define and explain the differences between **life span** and **life expectancy**.
3. Define the following terms: **gerontology, senescence, aging** .
4. Discuss the characteristics of aging: morphological, sensory changes, nerve/brain function.
5. Describe the various **models that are used to study the process of aging**: be able to discuss why researchers may choose one model versus another. What are the benefits or drawbacks of each?
6. Discuss when **aging begins**, what **aging markers** might be and how they can be used, whether all tissues/cells age at the same rate.
7. Be able to discuss the **10 theories of aging** and to show understanding of these processes.
8. Discuss the **relationship** between **energy use** and **aging** and **reproduction**.
9. Discuss **factors** involved in successful aging and **differences** between men and women in the aging process.
10. Discuss the **goals** and **responsibilities** of aging research.
11. Give the names and functions of the following cellular components and describe the importance of each in the aging process: **cell membrane, ribosome, mitochondria, nucleus, DNA, RNA**.
12. Describe the structure and function of a **gene** and how genes are **mutated**.