

# Kentucky Class Notes

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**BIO 103 Burke**  
**Fall 2010**  
**Test 1**

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August 25, 2010

- Reviewed Syllabus
- Definition of Science (Burke) - Science is an open system of skeptical inquiry producing falsifiable knowledge subject to modification based on empirical and objective testing.

August 27, 2010

- What is biology?
  - Biology is a natural study concerned with the study of life and living organisms, including their structure, function, growth, origin, evolution, distribution, and taxonomy. Biology is a vast subject containing many subdivisions, topics, and disciplines. Among the most important topics are five unifying principles that can be said to be the fundamental axioms of modern biology:<sup>1</sup>
    1. Cells are the basic unit of life.
    2. New species and inherited traits are the product of evolution.
    3. Genes are the basic unity of heredity.
    4. An organism will regulate its internal environment to maintain a stable and constant condition.
    5. Living organisms consume and transform energy.
- Greek
  - Bios = Life
  - Logos = Study
- Approx. 1.8 million species named
  - Only a fraction studied
- 5 – 100 million species may exist
- This may represent only 1% of the species that ever existed
- Unity of life exists within the diversity
- All life...

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<sup>1</sup> Avila, Vernon L. (1995). *Biology: Investigating life on earth*. Boston: Jones and Bartlett. pp. 11–18. ISBN 0-86720-942-9.