BIOL161L: General Biology I

First course in the two-quarter sequence of introductory biology for forestry students. Topics include cell structure and function, cellular energy metabolism, photosynthesis, genetics, and various facets of zoology, including anatomy and physiology, physiological ecology, and development. Current research will be used to illustrate the scientific and social importance of these topics. (NS)

Course Student Learning Outcomes

1. Conduct a scientific exploration in a logical and appropriate manner.

2. Correctly read and interpret biological information in books, journals and the media.

3. Understand the basic themes and concepts of the cellular basis of life.

4. Understand the basic themes, concepts, and applications of molecular biology.

5. Understand the basic themes and concepts of organismal biology, with the main focus on animals.

6. Understand the following five central themes relating to organismal biology:

7. How are organisms built?

8. How do organisms obtain and use nutrients and energy?

9. How do organisms transport fluids internally?

10. How do organisms sense and respond to the environment (internal and external)?

11. How do organisms develop and reproduce?

12. Understand and become familiar with how animals have adapted to the challenges they face in nutrition, respiration, water balance, excretion, monitoring internal and external environments, movement and reproduction.

13. Process information and experiences in the form of lab write-ups and projects, and demonstrate an ability to synthesize concepts, facts and ideas into coherent, independent work.

14. Discuss and express ideas and information, applying what they have assimilated from readings, laboratory experiences and field work.

15. Build a foundation for further study and educated decision-making in biology.

16. Connect the overall concepts of biology to their local environments and daily lives.

Credits: 5
Prerequisites: Eligibility for both ENGL& 101 and MATH 090/091.
Program: **Biology**