

Institute for Science and Mathematics

Biology, Structure and Function, 2010/2011

Instructor: Dr. M.E. Donaldson

Syllabus

Fall 2010: Human Anatomy and Physiology

1. Hierarchical organization of living systems
2. Macromolecules: the chemistry of living Systems
2. DNA: The Regulation of Life
3. Heredity: The Continuity of Life
4. Cytology: The Design and Function of Cells
4. Bones and Muscles
5. The Nervous System
6. Nutrition and Digestion
7. Circulation and Respiration
8. Integumentary, Excretory and Endocrine Systems
9. Disease and the body's Immune System

Spring 2011: Botany and Zoology

1. Flowering Seed Plants
2. Structure and Function of Leaves
3. Flowers, Fruits and Seeds
4. Stems and Roots
5. Variety in the World of Plants
6. Mammals
7. Birds
8. Reptiles and Amphibians
9. Fish
10. Arthropods
11. Variety in the World of Invertebrates

Grading:

Homework 40%

- Typed lecture notes
- Worksheets and study questions
- Lab write-ups

Notebooks..... 10%

- Notes
- Lab/Science Fair project Notes

Participation..... 10%

- Class discussions
- Lab exercises

Tests 40%

Text: (optional) Modern Biology Student Edition (Hardcover), by A. Towle

Cost \$190/semester; \$380/full year