

INSTITUTE FOR SCIENCE AND MATHEMATICS
Biology, Structure and Function, 2024-25
Instructor: Dr. M.E. Donaldson

Syllabus

Fall 2024: Cell Biology, Human Anatomy and Physiology

Spring 2025: Botany and Zoology

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| <ol style="list-style-type: none">1. Hierarchical organization of living systems2. Macromolecules: the chemistry of living Systems2. DNA: The Regulation of Life3. Heredity: The Continuity of Life4. Design and Function of Cells4. Bones and Muscles5. The Nervous System6. Nutrition and Digestion7. Circulation and Respiration8. Integumentary, Excretory and Endocrine Systems9. Disease and the body's Immune System | <ol style="list-style-type: none">1. Flowering Seed Plants2. Structure and Function of Leaves3. Flowers, Fruits and Seeds4. Stems and Roots5. Variety in the World of Plants6. Mammals7. Birds8. Reptiles and Amphibians9. Fish10. Arthropods11. Variety in the World of Invertebrates12. Populations, communities and ecosystems |
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Grading*

Homework 50%

- Typed lecture notes (due at the beginning of each class period)
- Worksheets and study questions
- Lab write-ups

Participation..... 10%

- Class discussions
- Lab exercises

Tests/quizzes..... 40%

Text: Biology. S. Robinson (Ed). CK-12 Foundation, 2011. Electronic Text available at:

www.scimathinstitute.org/texts/biology.pdf

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

Cost \$395/semester

* Policies regarding work.

- 1) Work is to be handed in at the beginning of the class period. Work turned in after this is considered late. Late-work will be accepted up to the beginning of the next class period for half credit. After that the work is considered a zero.
- 2) Extra credit will only be considered for those who hand in their regular work.
- 3) Makeup work must be completed within one week upon return from an absence.
- 4) Keep all notes and graded homework in a file for the complete school year.