

Cell Biology & Genetics (BI-102) Fall '08 (section 003)

Professor: Charles S. Tritt, Ph.D. (tritt@msoe.edu)
 Office: S-355C
 Phones: 277-7421 (office), 262/512-9158 (home), 277-7465 (fax)
 Lecture: Tu, Th & F 12:00-12:50 in S-358
 Lab: Tu 1:00 to 3:50 in S-255
 Office Hours: Tu, W & Th 10:00 to 11:00 and Th 1:00 to 3:00 in S-355C. Possibly Th 11:00 to noon in the RWJ cafeteria. Other times by appointment.
 Course Web Page: <http://myweb.msoe.edu/~tritt/bi102>
 Textbook: Biology, 8th ed. (Volume 1), Raven, Johnson, Losos, Mason and Singer. McGraw-Hill 2008 (Website: <http://highered.mcgraw-hill.com/classware/infoCenter.do?isbn=0072965819>)
 Course Policies: <http://myweb.msoe.edu/~tritt/policies.html>

Tentative Lecture Schedule

| Week | Topic (reading assignment) |
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| 1 | Introduction to Course and Biology (Handouts and Chap. 1) |
| | Introduction to Biology, continued |
| | Review of Basic Chemistry (Chap. 2) |
| 2 | Introduction to Biochemistry (Chap. 3) |
| | Introduction to Biochemistry, continued |
| | Cell Types and Structure (Chap. 4). Quiz 1 |
| 3 | Cell Types and Structure, continued |
| | Biological Membranes (Chap. 5) |
| | Membranes, continued |
| 4 | Energy and Metabolism (Chap. 6) |
| | Energy and Metabolism, continued |
| | Harvesting Energy (Chap. 7). Quiz 2 |
| 5 | Harvesting Energy, continued |
| | Cell Communication (Chap. 9) |
| | How Cells Divide (Chap. 10). |
| 6 | Cell Division, continued |
| | Sexual Reproduction and Meiosis (Chap. 11) |
| | Meiosis, continued. Quiz 3 |
| 7 | Patterns of Inheritance (Chap. 12) |
| | Inheritance, continued |
| | Chromosomes & Inheritance (Chap. 13) |

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| 8 | DNA: Genetic Material (Chap. 14) |
| | DNA, continued. |
| | Genes and How They Work (Chap. 15). Quiz 4 |
| 9 | Genes, continued |
| | Control of Gene Expression (Chap. 16) |
| | Control of Expression, continued |
| 10 | Biotechnology (Chap. 17) |
| | Genomics (Chap. 18). Quiz 5 |
| | Cellular Mechanisms of Development (Chap. 19). |

Tentative Laboratory Schedule

| Week | Topic |
|------|--|
| 1 | Introductory Lab (science, experimental design, lab notebooks, etc.) |
| 2 | Introductory Lab (continued) |
| 3 | Enzyme Lab |
| 4 | Enzyme Lab (continued) |
| 5 | Microscopes and Observation |
| 6 | Microscopes and Observation (continued) |
| 7 | Fly Lab |
| 8 | Fly Lab (continued) |
| 9 | DNA Lab |
| 10 | DNA Lab (continued) |

Biweekly quizzes and the final will be closed book, closed notes.

Final: Friday, 11/21 (my birthday) from 8:00 to 10:00 in S-358.

Tentative Grade Weights:

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| Quizzes | 35% (5 at 7% each) |
| Labs (includes notebook) | 30% |
| Homework | 4% (2 at 2% each) |
| Final | 31% |