

ABRIDGED

BIOL 100 (20223) Principles of Biological Science Spring 2014 4 Credits

Instructor: Ms. Susan Moss, Associate Professor of Biology
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Required:

► Textbooks:

Biology: The Essentials by Mariëlle Hoefnagels, 2013, 1st edition
Biology 100 Lab Manual (Customized) – available in the bookstore only

► Safety glasses

General Class Policies

- Attendance and punctuality are required. I start on time and expect you to be seated by the time class starts and I begin taking roll. If tardiness becomes a problem, I will start locking out late arrivers.
- Disruptive, inappropriate, or offensive behavior of any kind will not be tolerated and may result in your being dropped from the course.
- Rude and disrespectful behavior, such as sleeping or audible yawning, is not allowed.
- As per IVC policy, this course is conducted solely in English. Only English may be spoken when lecture or lab is in session.
- Voice recorders may be used to record lectures. Videotaping is never allowed.
- If your cell phone starts ringing, **10 points** will be deducted from your final point total.
- No open food or drink containers are allowed in the classroom or lab.
- Safety glasses must be worn and long hair tied back when experiments and dissections are done in lab.

Attendance Policy

- Each absence earns you **2** strikes.
- Each time you are late earns you **1** strike.
- Each time you leave while class is still in session earns you **1** strike.
- If you reach **8** strikes, you will be dropped from the course.
- There are no “excused” absences. **Every absence counts against you.**

Course Description

This is a comprehensive one-semester general biology course for non-majors. It covers all life forms – from single-celled to multicellular organisms. Various basic biological questions will be addressed, such as:

- What are the characteristics and building blocks of life?
- What structures are living things made of and what are their functions?
- How are living things classified?
- What forces direct the evolution of living things?
- How do living things interact with each other and their environment?
- What are the organ systems of the human body?
- How are humans disrupting the natural processes that maintain life on earth?

Exams – Written

There will be **4** written exams. Questions will be based on lecture notes and lab activities.

Everything said or done in lecture/lab is fair game! Written exams will include multiple-choice, short-answer, fill-in, true/false, and matching questions. There may also be diagrams to label.

Make-up Written Exam Policy

To be eligible for a make-up exam, you must notify me (by phone or email) **before the start of the exam** as to why you cannot be present for the exam. Make-up exams must be taken within one week of the scheduled exam day. No more than **ONE** exam may be made up.

Exams – Lab Practical

- There will be **2** lab practical exams. The practicals focus on lab-related material, but may include some lecture material as well. Most practical questions are recall-type questions. **No make-up lab practicals will be given.** **If** you notify me in advance that you have to miss a practical **and** you have a legitimate excuse with supporting documentation, I will prorate ONE missed practical. A second missed practical will receive a zero.

EXAM-TAKING RULES:

- ◆ Long hair must be tied back.
- ◆ No hats or hoods may be worn.
- ◆ Hands must remain on top of the table.
- ◆ Test pages must be folded under when you turn a page.
- ◆ For matching & labeling, **capital** letters must be used.
- ◆ Black pen must be used for labeling.

Spelling

Spelling of structures and terms counts on ALL exams and practicals. The penalty for each spelling error is ½ point.

Quizzes

Throughout the semester, quizzes will be given at the beginning of the lab period and will test your knowledge of certain terms and concepts. The quizzes will be timed (10 min.). If you arrive late, you will not be given extra time. Only **ONE** make-up quiz will be granted. Any other missed quizzes will receive a zero.

Laboratory – Policy & Procedures

- You will be responsible for conducting yourself properly and safely during lab. This includes: handling materials and equipment carefully, following instructions, putting items back where you found them, and cleaning your area before leaving.
- Lab work will consist of material taken from the Laboratory Manual and any additional lab work assigned. For some labs, you will be required to turn in a lab report. Only original pages from the lab manual will be accepted.
- Safety glasses must be worn during experiments and dissections.
- Long hair must be securely tied back at all times.
- No more than 4 people may work together.
- All group members must participate in **all** activities.
- ONE lab report is turned in per group.
- Everyone in a group will receive the same grade.
- Any group member who leaves before the assignment is completed and turned in will receive a zero grade.
- Each group member must write his/her **own** name on lab reports.

Missed labs cannot be made up.

Grading

Test and practical scores that end up in the middle of two numbers will be rounded **down**. Final grades are calculated using a simple point system. If your test/practical average is $\geq 70\%$, your grade will be based on the total points you earn divided by the total points possible. The grading scale will be:

- A $\geq 90\%$
- B = 80-89 %
- C = 70-79 %
- D = 60-69 %
- F $\leq 59\%$

- ◆ Exams: 150 pts. each
- ◆ Lab Practicals: 50 pts each
- ◆ Quizzes: 15 pts each
- ◆ Lab reports and class activities: 10-20 pts each
- ◆ Participation, Class Conduct, Misc.: 30 pts.

“Participation” means asking questions, answering questions, contributing thoughts and opinions. In other words, being an active member of the class!

“Class Conduct” means following class policies & procedures.






IMPORTANT: ➤ If your overall exam average is below 60%, you will automatically receive an **“F”** for the course.

➤ If your overall exam average is 60 – 69%, you will automatically receive a **“D”** for the course.

SCHEDULE

IMPORTANT: Schedule is tentative and subject to change.



| | Wednesday Lecture 2736 | Friday Lab 2713 |
|-------------|---|--|
| Jan. 22/24 | Introduction Ch 1 – Introduction to Biology | Scientific Method |
| Jan. 29/31 | Ch 2,3 – Cell Chemistry; Cell Structure & Function; <i>News Articles 1</i> | Cell Chemistry (#3); Q1  |
| Feb. 5/7 | Ch 3, 8 – Cell Structure & Function; Cell Cycle | Metric & Microscopy (#2) |
| Feb. 12/14 | Ch 7, 10 – DNA; Genetics & Patterns of Inheritance; <i>News Articles 2</i> | *** NO SCHOOL *** |
| Feb. 19/21 | EXAM 1: 9:30-11:45 (Material covered 1/22 – 2/7) | LAB PRACTICAL: 10:45 (same material) |
| Feb. 26/28 | Unit 6 – Human A&P – digestive, cardiovascular, respiratory, skeletal; <i>News Articles 3</i> | Digestion & Enzymes (#5); Q2  |
| March 5/7 | Unit 6 – Human A&P – muscular, integument, nervous system & senses | Cellular Respiration (#7.2)  |
| March 12/14 | Unit 6 – Human A&P – urinary, endocrine, defense, reproductive; <i>News Articles 4</i> | Bones, Brains, Eyes, Ears, Hearts; Q3 |
| March 19/21 | Ch 15,17 – Classification of Life | Rat Dissection (#24) and QUIZ  |
| March 26/28 | EXAM 2: 9:30-11:45 (Material covered 2/12, 2/26, 3/5, 3/12) | LAB PRACTICAL: 10:45 (Material covered 2/28, 3/7, 3/14) |
| April 2/4 | Ch 12, 13 – Evolution & Evolutionary Mechanisms; Adaptation; <i>News Articles 5</i> | DNA extraction; Outside adaptation activity; Q4  |
| April 9/11 | Ch 5, 16, 21, 22 – Plants | Outside plant survey Flower dissection |
| April 16/18 | EXAM 3: 9:30-11:45 (Material covered 3/19, 4/2, 4/9, 4/11) | Ecology – Food chains/webs Desert food web activity |
| April 23/25 | Spring Break | |
| 4-30/May 2 | Unit 4 – Ecology – biomes, biodiversity, limiting factors, symbiosis; <i>News Articles 6</i> | Owl pellet dissection; Q5 |
| May 7/9 | Unit 4 – Environmental Issues – overpopulation, global warming, acid rain, exotic species | Paper-making |
| May 14 | EXAM 4: 9:30-11:45 (Material covered 4/18, 4/30, 5/7) | |