

# BIOL 1108 Principles of Biology II Syllabus (Spring 2024)

**"...Physiology is indeed an explanation of life. What other subject matter is more exciting, more beautiful than the subject of Life?" --Dr. Arthur Guyton, MD (1919-2003)**

**Instructor:** Dr. Theresa J. Grove

**Office:** BC 1036 (in the CoSM Dean's Suite)

**Student Hours:** Currently scheduled for: Monday 4:00-6:00, Wednesday 3:00-4:00, and Thursday 2:00-4:00 (or by appointment). As the semester progresses, it's possible that I will have to change these times to better accommodate students or if something changes in my schedule. If these times are changed I will announce new hours in class and post on BV.

**Email:** tjgrove@valdosta.edu (After 6 p.m. I may not respond until the next morning. If you send me an email over the weekend, I may not respond until Monday morning. I only infrequently check Blazeview messages, so please use my tjgrove@valdosta.edu account.

**Office Phone:** 229-333-5336

**Announcements:** I routinely post announcements on BV and make announcements in lecture about due dates, homework, etc. It is your responsibility to be aware of the announcements and if you have any questions to ask.

**Lecture (BC 1023):** Monday, Wednesday, Friday 10:00 a.m. – 10:50 a.m.

**Prerequisite:** BIOL 1107/1107L (or the equivalent) or permission of the instructor.

**Catalog Description:** An introduction to physiological processes in plants and animals. Structure, nutrition, transport, coordination, reproduction, and development will be addressed. *What does this mean?* Physiology explains how organisms work and how they respond (biologically) to their environment.

**Why study physiology (or take BIOL1108)?** Understanding physiology will help you...

- 1) ...understand your physiological self (or those you care about).
- 2) ... understand your pet's or plant's physiological self.
- 3) ... prepare for careers in medicine and other biological fields (PT, nursing, exercise physiology, grad school, researcher, vet medicine, medical school, etc.).
- 4) ... understand your food supply, your environment, basically the entire world around you.
- 5) ... build foundational knowledge for higher level courses.
- 6) ... help you learn how to think critically and think through complex processes.

**Overarching Goal for this Course...** is to introduce structure-function relationships and physiological processes of plants and animals. This is the second introductory course, and it is expected that you are familiar with topics covered in BIOL1107 so that you can build on your foundational knowledge of biology. During this class you will learn how to ask (and answer) scientific questions to explain natural phenomena and gain a greater understanding of processes that occur in living organisms.

**Specific Learning Goals include:**

- Increase your understanding of structure-function relationships in biology
- Increase your understanding of the physiology of the major systems in plants and animals including:
  - Structure/function relationships
  - Nutrition
  - Transport
  - Movement
  - Reproduction
  - Development
  - Sensory systems
- Strengthen your ability to understand science and critically evaluate science in the news
- Cultivate the linkage of biology with math, physics, and chemistry
- Strengthen/reinforce study habits and behaviors that lead to success

**BIOL1108 (Principles in Biology II) is a Core IMPACTS course that is part of the Technology, Mathematics & Sciences (STEM) area.**

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help master course content, and support students' broad academic and career goals.

This course directs students toward a broad Orienting Question:

- How do I ask scientific questions or use data, mathematics, or technology to understand the universe?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will use the scientific method and laboratory procedures or mathematical and computational methods to analyze data, solve problems, and explain natural phenomena.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Inquiry and Analysis
- Problem-Solving
- Teamwork

**Textbook**

- Any Introductory Biology textbook will work. However, the syllabus and organization of lectures is based on OpenStax Biology 2e (<https://openstax.org/details/books/biology-2e>), which is free.

**Attendance:** Attendance in lecture is expected by all students.

**COVID and other illnesses:** If you are sick don't come to class.

**Questions:** If you have any questions, don't hesitate to ask.

**Support, Engagement and Success**

- I want you to succeed and I will work with you and support you to help you learn the material. Come to my office, ask questions in class, or set-up additional appointments with me.
- To learn the material, you must engage with the course content. Cramming a few days before the exam (or even a week before the exam) is not a good habit. You should go over the material (new and old) each week. Being a full-time student is a full-time job.
- You must be able to evaluate your own actions/study habits and be willing to change how you study if you are not satisfied with your grade(s). If you don't know what to do, see me or check out the Academic Support Center (ASC).
- There are lots of resources on campus; ASC provides unlimited, in-person free peer tutoring in core classes, and they offer free online tutoring via Tutor.com (8 hours/student, available 24/7). Click Free Tutoring link in any BlazeView course to make appointments. You can also drop by ASC in Odum Library, 2<sup>nd</sup> floor or call 229-333-7570, email [asc@valdosta.edu](mailto:asc@valdosta.edu), or visit [www.valdosta.edu/asc](http://www.valdosta.edu/asc) for more information.
- GUIDES peer mentors will also be available to help you out. More information will be announced next week.
- I've also posted a Study Tips handout in BlazeView.
- Get organized...have an academic planner or calendar to keep track of due dates.
- Study Guide topics will be provided with each group of slides that are posted in BV.

## **Spring 2024 TENTATIVE LECTURE SCHEDULE**

(Note that this is a tentative schedule so topics and dates covered may change) It is possible that I may have to cancel a class. If this is the case, I will post a recorded lecture for you to watch or some other assignment for you to complete. The chapters listed below are to guide you. There may be content in chapters that I do not go over that will not be on exams, and content in lectures that is not in the book that you will be tested over.

Note about exam 1: While there will be 'new to you' content covered for Exam 1, the majority of the topics are a review of BIOL1107. The purpose of this is to put them in context of how organisms function.

### January

- 8 Intro to BIOL1108,
- 10 Biological Organization: Molecules through Organism (Chapters 2 and 3)
- 12 Biological Organization: Molecules through Organism (Chapters 4 and 5)
- 15 Martin Luther King Day: No Class
- 17 Biological Organization: Molecules through Organism (Chapters 6 and 7)
- 19 Cell Communication (Chapter 9)
- 22 Intro to Tree of Life, Phylogenies, and Evolution (Chapters 18 and 20)
- 24 Catch-up & Review
- 26 **Exam 1**
- 29 Introduction to Animal Diversity (Chapter 27); The Animal Body (Chapter 33)
- 31 Animal Nutrition & the Digestive System (Chapter 34)

### February

- 2 Animal Nutrition & Digestive System (cont'd)
- 5 The Endocrine System (Chapter 37)
- 7 Endocrine System (con'td)
- 9 Musculoskeletal System (Chapter 38)
- 12 Musculoskeletal System (cont'd)
- 14 Catch-up and Review
- 16 **Exam 2**
- 19 Respiratory System (39.1, 39.2, 39.3, 39.4)
- 21 Respiratory System (cont'd)
- 23 Circulatory System (40.1, 40.2, 40.3, 40.4)
- 26 Circulatory System (cont'd)
- 28 Osmotic Regulation & Excretion (Chapter 41)

### March

- 4 Osmotic Regulation & Excretion (cont'd)
- 6 Animal Reproduction & Development (Chapter 43)
- 8 Animal Reproduction & Development (cont'd)
- 11-15 Spring Break
- 18 Catch-up and Review
- 20 **Exam 3**
- 22 Plant Diversity and Seedless Plants (Chapter 25.1, 25.3, 25.4)
- 25 Seedless Plants (cont'd)
- 27 Chapter 26: Seed Plants (Chapter 26)
- 29 Chapter 32: Plant Reproduction (Chapter 32.1, 32.2, 32.3)

### April

- 1 Alternation of Generations Recap and Cell Structure Review and Plant Body (Chapter 30.1)
- 3 Plant Body (cont'd)
- 5 Stems, Roots, Leaves (30.2, 30.3, 30.4)
- 8 Stems, Roots, Leaves (cont'd)
- 10 Catch-up and Review
- 12 **Exam 4**
- 15 Transport of Water & Solutes in Plants (Chapter 30.5)

- 17 Transport of Water & Solutes in Plants (cont'd)
- 19 Plant Sensory Systems & Responses (Chapter 30.6)
- 22 Plant Sensory Systems & Responses (cont'd)
- 24 Soil & Plant Nutrition (Chapter 31)
- 26 Soil & Plant Nutrition (cont'd)
- 29 Review for Exam 5 and Final

**Exam 5 and Final Exam:** Tuesday, April 30 10:15am-12:15pm; no early exams will be given. Exam 5 will cover the last unit. The final exam will cover major biological concepts covered in class.

**Midterm:** Midterm is Feb 29, and Mar 7 is the withdrawal deadline.

**Blazeview D2L:** Take advantage of the resources on BV, which include the following:

- Check BV for course announcements.
- Lecture slides will be available by ~5:00p.m. the day before lecture.
- I will record lectures and post them on BV. These recordings are not a substitute for attending lectures, but are meant as a tool to clarify content outside of lecture. If there are technology issues, the lecture recording will not be available.
- Grades will be posted in BV. If you have any questions about your grade, see me.

### How You Earn Your Grade

To calculate your grade, add up the points that you earn and divide by the total points possible. Multiply this number by 100% to get a percentage. I reserve the right to curve (or not curve) the final course grade (or any exam grade) at the end of the semester. Your final grade will be based out of 750 points (600 pts from exams + 100 pts from lecture quizzes + 50 points from homework). Blazeview Online Quizzes (see below) are optional and at the end of the semester can be used to replace your lowest "regular" exam grade.

The grading scale is below.

- A 90-100%
- B 80-89%
- C 70-79%
- D 60-69%
- F < 60

- **Lecture Exams (600 points total):** A total of four (5) 'regular' exams and one (1) final exam will be given during the semester (a total of six exams). Each exam will be worth 100 points and will be multiple choice. No online exams will be given. If you miss an exam you must contact me within 48 hours in order to makeup an exam; this makeup exam may have different questions. Except under extenuating circumstances with evidence from doctors or other professionals, students must schedule a time to retake the exam within 5 business days of the original exam date, otherwise they will earn a zero on the missed exam. Any exams approved to be taken after 5 business days will be a different format exam with different questions. Exams will be handed back no later than 7 days after the exam date.

Any content from lecture, assignments and quizzes is fair game for an exam. All exams will have ~40 multiple choice questions. On each exam there may be a few questions (2-3) on "old" material. All exams will be completed during class. **Students will not be allowed to leave during an exam.**

All exams are closed book. Communicating with other living humans, using a cell phone or any other item to look at information covered on an exam during an exam is considered cheating. If caught, you will earn a zero for the exam.

- **BlazeView (BV) Online Quizzes (100 points total):** These are optional assignments BUT you can use these points (out of 100) to replace your lowest 'regular' exam grade at the end of the semester. These points cannot replace your final exam grade. To help you prepare for lecture exams, multiple choice quizzes with 5-10 questions will be given throughout the semester on BV. You will complete these quizzes 2 times, and both scores will count towards your total points earned. Why take the quiz two times?
  - Purpose of the 1<sup>st</sup> round: to figure out the answers
  - Purpose of the 2<sup>nd</sup> round: to practice recall of the information

BV Quiz Grading Explained: For the first round, each question is worth 1 point, and for the second round each question is worth 0.25 points. Based on these point values, each quiz (combined 1<sup>st</sup> and 2<sup>nd</sup> round) will be worth ~10-20 points.

BV Quiz Logistics: The **1<sup>st</sup> round** will be open book and will not be timed (you have all the time you need to figure out the answers) and will open on Sunday at 3:00pm and close (be unavailable) on Thursday at 9pm (~4 days to complete). Each question will be worth 1 point. The **2<sup>nd</sup> round** will be timed (1 minute/question), and while it will be considered open book, you should review content prior to taking the quiz. The questions on the 2<sup>nd</sup> round are the same questions as the first round. The 2<sup>nd</sup> round will open on Thursday at 9pm and will close Sunday at 3pm (become unavailable). Each question will be worth 0.25 points.

Each student will be given 3 opportunities to re-open the 1<sup>st</sup> round of a quiz. To do this, you must send me an email to [tjgrove@valdosta.edu](mailto:tjgrove@valdosta.edu) within a week of the due date for that particular quiz, give me the quiz number (e.g. Quiz 1), and ask me to re-open it. The 2<sup>nd</sup> round timed quizzes will not be reopened. Aldosta.edu

These quizzes will be completed on BV. There will be no quizzes during the first week of class, and no BV quizzes will be given during weeks when there is an exam. All of these quizzes combined will be worth a total of 100 points, and at the end of the semester, you can use this score to replace your lowest regular exam grade. These BV quizzes are optional, so if you do not complete them, it will not hurt your grade. Also, these 100 points will only be included in your final grade calculation if your score on these 100 points is higher than your lowest exam grade, at which point (this score cannot hurt your grade).

- **Lecture Assignments (~50 points):** Lecture assignments may include take-home, in-class, or online assignments. Assignments will be worth variable points. These lecture assignments are NOT optional. Online assignments in BV will open and close automatically. No late assignment will be accepted once the due date passes without an approved excuse (Dr. Grove determines whether or not an absence is excused). Dr. Grove will announce these assignments in lecture and in BV announcements throughout the semester. Any homework that is handed out in lecture will also be posted in BV.
- **Lecture Quizzes (100 points):** To encourage you to attend lecture and to study after each lecture, the format of the lecture quizzes will change. Lecture quizzes will no longer be given in lecture. Instead, they will open the day after a lecture (at 10pm) and close 24 hours later (at 10pm). For example, the lecture quiz for a Monday lecture will open at 10pm on Tuesday and close at 10pm on Wednesday. Each quiz will be 10 pts: 5 questions, 2 pts each). Lecture quizzes will also be timed (10 minutes once you start the quiz); and similar to when they were given in lecture, you can talk to people, use notes, etc. There will be a lecture quiz given in BV after each lecture, which means there will now be a total of ~25 lecture quizzes given, but only the highest 10 quizzes will count towards your grade. Because only the highest 10 lecture quizzes count, a missed quiz cannot be made up. I will use the last few minutes of each lecture to ask questions to the class about the content from that day.

To encourage you to attend lecture and to help you prepare for exams, short quizzes (10 pts: 5 questions, 2 points each) will be given in lecture throughout the semester. These usually will occur at the end of a lecture (although they may occur at the beginning) and will not be announced. Approximately 15 quizzes

~~will be given throughout the semester, and the highest 10 (100 points) will count towards your grade. Because I only count your highest 10 grades, a missed quiz cannot be made up. Please do not think that there are plenty of chances to miss quizzes for unexcused reasons (didn't feel like attending class, overslept, etc.) because if you miss 5 quizzes because of not so good choices, and then you do have a legitimate reason (excused illness, university function, etc.), you will still not be able to make up the quiz.~~

Lecture quizzes may have various formats including, but not limited to, closed book, open book, and group quizzes. Quizzes may also simply be based on attendance. Quizzes may have confidence components included with each question. The confidence component is designed for you to think about your mastery of the subject and will ask you if you are "Confident" or "Not Confident" with your answer. Students who are accurate and confident in their knowledge and understanding of the material will earn the most points, and students who are wrong, but think they are right will earn the least amount of points. Essentially, the metacognitive component of the quiz should increase the confidence in students who do know the material, but may not be confident in their understanding, and to help some students who are overly confident in their understanding of the material recognize that they are not as prepared as they think they are. The point values for your answers will be: 2 pts: Right answer and confident, 1 pts: Right answer but not confident, 0.5 pt: Wrong answer and not confident, 0 pts: Wrong answer but confident

**Academic conduct:** Academic integrity is the responsibility of all VSU faculty and students. Students are responsible for knowing and abiding by the Academic Integrity Policy as set forth in the Student Code of Conduct and in this syllabus. Cheating and plagiarism will not be tolerated and may result in a failing grade for the assignment, exam, or your final grade and may be referred to Student Affairs for further disciplinary action. It is your responsibility to read and understand the directions of all assignments, quizzes, and exams. If you have any questions ask before the due date.

**Privacy Act (FERPA):** The Family Educational Rights and Privacy Act (FERPA) prohibits the public posting of grades by social security number or in any manner personally identifiable to the individual student. No grades can be given over the telephone, but I do post grades in BlazeView.

**Access Statement:** Students with disabilities who are experiencing barriers in this course may contact the Access Office ([www.valdosta.edu/student/disability/](http://www.valdosta.edu/student/disability/)) for assistance in determining and implementing reasonable accommodations. The Access Office is located University Center Room 4136 Entrance 5. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP). For more information, please visit VSU's Access Office or email: [access@valdosta.edu](mailto:access@valdosta.edu). To request reasonable accommodations for pregnancy and childbirth, contact Ms. Myia Miller, Title IX Compliance Officer at [maburden@valdosta.edu](mailto:maburden@valdosta.edu). Please note, you will be required to provide documentation from an appropriately licensed medical professional indicating the requested accommodations are medically necessary.

**Non-Discrimination & Title IX Statement:** Valdosta State University (VSU) upholds all applicable laws and policies regarding discrimination on the basis of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity or expression, national origin, religion, age, veteran status, political affiliation, or disability. The University prohibits specific forms of behavior that violate Title IX of the Education Amendments of 1972. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal funding. VSU considers sex discrimination in any form to be a serious offense. Title IX refers to all forms of sex discrimination committed against others, including but not limited to: sexual harassment, sexual assault, sexual misconduct, and sexual violence by other employees, students or third parties and gender inequity or unfair treatment based on an individual's sex/gender. The designated Title IX Coordinator for VSU is Ms. Selenseia Holmes. To view the full policy or to report an incident visit: <https://www.valdosta.edu/administration/student-affairs/title-ix/>.