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LIVE CLASSES

Advanced Biology – The Human Body

Mrs. Loisann Fowler

Syllabus

2024-2025

Personal Note:

Welcome! If you are receiving this, you have registered for Apologia's Live Class, *Exploring Creation with Biology* with Mrs. Fowler. I am thankful for each one of you and anticipate a great year together! Let me introduce myself. As an 'almost' native Floridian, having moved to Florida from my birth state of Alabama at the age of 3 months, I live in the land of sunshine. I am married and have 5 children—2 boys and 3 girls. We home-educated all of our children K-12, and they are all now flourishing in their adult pursuits, thanks be to God.

I fell in love with science during my first Biology class. After studying Anatomy & Physiology in high school, my eyes were opened to the understanding that there is a Creator behind all the majesty, beauty, and order. Therefore, I earned a Bachelor of Science degree from Auburn University and enjoyed physical therapy work with spinal injury patients after graduating. After being promoted to the profession of motherhood, I used Apologia science with my children and others at home and in co-ops, and I've taught Apologia's Live Classes for many years.

In 2020, I went back to school, and I am now a National Board-Certified Functional Medicine Health & Wellness Coach, which I practice in addition to teaching with Apologia. It is my deep desire that as we look into God's design of the world, we will all come to know and love Him more. I look forward to getting to know YOU as well!

We will be using Zoom for our web-based classroom, and students will find a link to join class each week on their Canvas homepage. I will host an Orientation for parents and students to try it out and become familiar with the basics. This will also be a time to learn my expectations and ask questions. The orientation will take place on August 13 at 11:00 a.m. EST and will last

about an hour. In early August, I will provide this link on Canvas. It is my goal to do whatever possible to help students be successful in this learning experience.

All my students will be given every chance to learn and grow for the glory of Christ and the joy of all people. There is a lot to learn, but we take it one bite at a time—“like eating an elephant,” as my husband is known to say.

Please read the following information related to the class at your leisure; most questions will be answered. For now, begin procuring the required materials. You are welcome to email me if you have any further questions. I do, however, take June and July off from Apologia, so I will answer your emails as soon as I'm available.

Warmly,

Mrs. Loisann Fowler

Description:

In this course, you will learn about the beautifully complex human body. God is by nature a revealer of Himself that He might be known. One of the ways that He has revealed Himself is through His Creation. So, it is my desire in this course that in addition to all the technical aspects of anatomy and physiology we will learn, each student will encounter the glory of our Creator within His Creation. Advanced Biology: The Human Body is a college-preparatory, lab-based high school anatomy and physiology course that covers all of the major systems of the human body. Just as life begins with a single cell, this course will begin with the simple and move to the more complex, studying histology, the cardiovascular, digestive, respiratory, nervous, and many other systems. With over 30 labs, including multiple dissections and a strong emphasis on terminology, this course will prepare

each student for a rigorous university anatomy and physiology course. Students will also be given a thorough introduction to college-level formal laboratory reports and continue to develop their skills in technical writing. Additionally, students acquire a more thorough understanding of how to care for their bodies in the future.

Prerequisites:

Biology and Chemistry.

NOTE: These are non-negotiables. In this course, we dive deeper into the concepts covered in the above courses. A solid understanding and foundation are essential.

Course Materials:

- **Student Textbook** - [Advanced Biology Textbook](#)
- **Solutions Manual** - [Advanced Biology Solutions Manual](#)
 - The textbook and Solutions Manual can be purchased together in the [Basic Set](#).
- **Coloring Book** - [Kaplan Anatomy Coloring Book](#) (7th - 9th editions are acceptable)
- **Microscope Slide Set** - [Human Body Slide Set & Blood Typing Kit](#)
- **Dissection Specimens** - [Human Body Dissection Specimens](#) – cow eye & heart, fetal pig
- **Dissection tool kit**
- **High school quality microscope** - at least 400x magnification w/ fine & coarse focus
- **Lab Supplies** - A list of household items needed for the activities is available at the back of the textbook
- **Colored pencils**

- **Notebook** – either a 3-ring notebook with tabbed dividers or the [Apologia Advanced Biology Student Notebook](#)
 - Note: I require more in-depth lab reports than the Student Notebook is designed to accommodate. Therefore, I do not require the [Apologia Advanced Biology Student Notebook](#). It is a nice organizational tool for everything else in our class, but if you purchase it, please note the student will need an additional lab notebook in which to write complete lab reports; whether it is a loose-leaf or bound notebook is up to the student. Basically, they simply need more space than the [Apologia Advanced Biology Student Notebook](#) provides.

Assignment Structure:

Experiments & Labs - In my class, all experiments, including dissections, are required. Experiments are essential to any Biology course, and this one is no exception. If you cannot or will not comply with this requirement, I suggest you consider our Video on Demand or Self-pace course, wherein you rent the recordings of class but have no instructor holding the student accountable; the parent sets the schedule. Most states in the U.S. require the completion of 3 lab sciences for a person to graduate high school. The following are comments from a couple of Apologia staff members to assist in your understanding.

“Dissections may actually contribute significantly to students developing a deeper appreciation for life. With the dissection, you get to see the organs in all dimensions, you get to look at it any way you want and what's better is that you get to touch it. This teaches students to appreciate what every single organ does for the body. Students who never see the inside of a real

animal may regard organisms (including themselves) as a virtual reality as thin as a photo or as dimensionless as the computer screen.”

-Apologia Online Academy Director, Larry Blythe

“There is an amazing awareness of God’s power of creation as we observe the various parts of living organisms. As you identify that the heart is made of tough and muscular material and how it is centrally located to the body versus the softer kidneys or the other organs and their placement, you begin to ask yourself, “How did these cells ‘know’ to form this as they divided? How do heart cells know to be heart cells, and how do liver cells know to be liver cells? What is driving this complexity?” This experience drives us to a better understanding of the power of our Creator. Also, it prepares us in many ways for adulthood. Watching a video of a dissection removes us from deep observation. We look at the images and may just think everything is “gross.” But when you are doing a dissection for yourself, you are more aware of what living beings look like on the inside. You are learning more than you realize. As a parent, I cannot tell you how many times it was helpful to me to know and understand what makes up our bodies. Through stitches, broken bones, other injuries, and sicknesses, I have a greater understanding of how to care for my children and to be there for them as they are scared with blood running down their forehead or with swelling ankles.”

- Sherri Seligson, Apologia author and video instructor

Formal Lab Reports - Students will write a minimum of two formal laboratory reports over the course of the year. The submission of a rough draft of each laboratory report may also be required. Technical writing and the scientific method will be emphasized as they work on their laboratory reports. The basics of this are learned in the prerequisite courses, Biology and Chemistry.

Additional information on laboratory report formatting and MLA styling can be found in the laboratory formatting guide on the Canvas course page. They will be covered extensively in class as well.

Notebooks - Students should keep a notebook that includes all of their notes and activities from the module. This is 25% of the grade in my class. A complete notebook will include the following items for each module:

- Notes from reading the module (optional but helpful for most)
- Notes from attending lectures (optional, but helpful for most)
 - Even if you are not a note taker, always have your notebook on hand to take notes during class. Important information for tests may be covered during this time.
- Work and answers to the On Your Own (OYO) questions
- Lab Reports for all experiments
- Work and answers to the Study Guide questions
- Work and answers to the book exams (practice tests)
 - These are tests found in the Solutions and Tests manual, NOT labeled as “Practice Tests,” but used by me as practice for my online tests.
- Kaplan Coloring Book
 - These assignments are found throughout the text. These assignments assist the student in identifying and labeling the parts of the human body studied, which are a large part of the course. Periodically, parents will check their student’s notebooks for completion.
- Work and answers to the Study Guide questions
- Work and answers to the book exams (practice tests)
 - These are tests found in the Solutions and Tests manual, NOT labeled as “Practice Tests,” but used by me as practice for my online tests.

I will email instructions for this process at the appropriate time, along with a rubric. The parents will submit a point-value grade on Canvas. I've designed it to be minimal work for the parents and is a helpful tool of accountability for everyone; student, parent, and teacher.

Grading Categories:

- 50% Tests
- 25% Lab reports
- 25% Notebook

Due Dates and Late Policy:

Deadlines for ALL on-time work will be posted on Canvas during each semester. Late submissions are allowed for a limited time, and 10% deductions will be applied for work turned in after the deadline.

Going on vacation? I have my assignments on Canvas for no less than the next month. These will be tweaked from time to time, so if you plan to go out of town, know that as long as you tell me 1-2 weeks ahead, you will only be responsible for the work already listed at that time. I encourage you to work ahead, especially because a vacation is usually in the works way ahead of time, giving you plenty of time to finish homework before it is late and enjoy your vacation.

Sick or have a family emergency? Let me know (if appropriate) so we can pray in class for you, or at the very least, I may pray privately! You will be given 1 extra week after you get back (more, if necessary) to submit any outstanding homework/test and have it count as "on time."

Extensions not due to sickness/family emergency may be requested by the parent at least 5 days before a due date. This is a last option, however, and the

student is expected to plan ahead. Lessons in time management abound. “I really had a busy week with all my school work and activities” is not acceptable for an extension.

Class Canvas Portal:

Students will access the course through the Canvas course portal:
<https://apologia.instructure.com/>.

Weekly Live Lecture:

Tuesdays, 11:00 a.m. - 12:30 p.m.

Help and Questions Outside of Live Class:

Every question is a good question, so please feel free to communicate with me. I am ready to help via email generally anytime from Monday – Thursday, 9:00 a.m. - 5 p.m. EST, and early mornings on Fridays. You can contact me at MrsFowler@apologia.com. Weekends and evenings are family time, so I will normally not be available. Thank you for respecting this policy. Although I occasionally (like you) need to catch up during these times, I strongly encourage you all to set aside time each week not to do school to refresh your souls!