



Exploring Creation with Biology

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Course Syllabus

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Description:

Exploring Creation with Biology, 3rd edition, is designed to be the student's first high school science course. As a lab-based, college-prep biology course, it provides a detailed introduction to the methods and concepts of general biology. Throughout the school year, students will gain a strong background in the scientific method, microscopy, biochemistry, ecology, cellular biology, molecular and Mendelian genetics, evolution compared to intelligent design, as well as a systematic survey of the classification kingdoms in Creation, all with a heavy emphasis on biological vocabulary. Utilizing an in-depth variety of experiments, including dissections, this course also provides a thorough application of the scientific method.

Additionally, students will be guided through the steps of writing formal scientific lab reports using the **MLA (Modern Language Association) format**. This is a skill that will benefit them throughout their high school years and beyond.

Overall, students who take and understand this course should be well-prepared for high school advanced sciences.

Upon successful completion of this course, students should:

- Understand the major principles of general biology.
- Appreciate and be able to explain common biological processes and concepts.
- Have completed a necessary precursor to anatomy and physiology.
- Be able to explain a scientific problem in terms of the scientific method.
- Improve their technical writing skills through the writing of formal scientific reports.

Prerequisites:

None. However, it is suggested that students take Algebra 1 during this year to prepare for Chemistry, which usually follows Biology.

Course Materials:

The following course materials are required (unless otherwise stated) for students to succeed in this course:

- Exploring Creation with Biology, 3rd Ed. — Advantage Set
 - Included in the Advantage Set:
 - Exploring Creation with Biology Textbook, 3rd Ed. by Vicki Dincer
 - Exploring Creation with Biology Solutions & Tests Manual, 3rd Ed.
 - Exploring Creation with Biology Student Notebook, 3rd Ed.
- Lab equipment
 - **REQUIRED:** [Dissection Kit with Specimens](#)
 - If you already own a dissection kit; you may purchase the dissection [specimens](#)
 - **REQUIRED:** [Microscope and Complete Slide Set](#)
 - **Note:** In most states, and for entrance into most colleges, 2-3 sciences with labs are required during the high school years. Working with and understanding how to use a microscope is usually required for a high school lab-based biology course. Further, actually **seeing the microscopic world is so incredibly helpful in understanding many of the topics covered in this course!** The Microscope and Complete Slide Set can be ordered through Apologia,

Nature's Workshop Plus, or you can do a web search for used or refurbished microscopes. Some families are even able to join with others in sharing the cost and have fun performing the labs together every two weeks or so.

- **Microscope criteria:** When purchasing a microscope, keep the following criteria in mind:
 - Should have an electric light source (mirrored microscopes will be insufficient for this course)
 - Should have at least three separate magnifications with a maximum magnification of at least 400x (Usually 40X, 100X, and 400X magnification).
 - Oil immersion is not necessary.
 - Both a coarse and fine focus
 - A diaphragm to control the amount of light.
- **REQUIRED:** Typical Household Items:
 - Appendix C in your text lists the items you will need to perform the experiments in each module.
- **REQUIRED:** Any word processor software for writing and turning in lab reports (Microsoft Word is recommended. Google Drive is also a good FREE option).
- **RECOMMENDED:** Colored pencils to use for drawings in your lab notebook
- **RECOMMENDED:** Computer headphones or earbuds for live classes

Assignment Structure:

Final grades for this course will be based on the following activities:

Activity	Percent of Grade
Online Module Exams	40%
Online Homework	5%
Formal Laboratory Report Work: Partial and Full Reports	30%
Daily Work Notebooks	25%
Total	100%

Online Module Exams

The majority of points in this course will be obtained from the successful completion of the sixteen online module exams posted on the Canvas course page. We will complete a module every two weeks. The exam for that module will be due each Monday after the second week of that module. Exams will consist of a combination of questions formatted as multiple choice, true/false, fill in the blank, matching, short answer, labeling, and essay.

Exam Guidelines

- All short answer/essay questions must be answered in complete sentences and preferably proofread for correct grammar.
- All tests are to be taken closed book/closed notes and without the help of other outside sources, including the internet.
 - **Note: I highly recommend that you proctor your students' tests. It is the parent(s)' responsibility to ensure that students do not utilize outside help while taking the tests.**

- o The only exception to this closed book/internet rule is when a parent has privately contacted me to discuss their student with legitimate “learning curves” (as my son with Dyslexia likes to call it). 😊 If needed, I will work with you to establish appropriate accommodations for your student(s) on a case-by-case basis. If applicable, please email me the particulars of your student’s needs at mrsedmondson@apologia.com.

Laboratory Notebook:

As students work through the modules in the textbook, **all laboratory assignments included in the text should be completed.**

Completing a lab includes both performing the experiment and writing an informal lab report in the student’s notebook, *Exploring Creation with Biology, 3rd Edition* Student Notebook.

The format for an Informal Lab Report can be found on your Canvas course page.

At the end of each quarter, parents will check the student laboratory notebooks for completion. I will email instructions for this process when the assignments are due.

NOTE: The lack of availability of experimental supplies will be considered if you live in an area where certain equipment/supplies cannot be obtained. Parents should email me with these extenuating circumstances as they arise.

Formal Laboratory Reports/Practice Reports

In addition to the Informal Lab Reports (this is a simplified report to be kept in the Student Notebook explained above), students will be required to write

and turn in Formal Laboratory Reports using **MLA formatting**. The submission of Practice Reports will also be required during the first semester. The Practice Reports will consist of writing various sections (Introduction/Hypothesis, Observation/Results, and Discussion, for example) as opposed to a full report in the form of a lab tutorial. This should help students to “practice” MLA formatting and to improve their writing and knowledge of the scientific process. The feedback will then be implemented into a full Formal Laboratory Report for final review during the second semester.

Technical writing and the scientific method will be emphasized as students work on these reports. Many students have not written a technical paper, and I take that into account. ☺ We will wade in together!

These laboratory reports will serve as a great tool in preparing students for college-level scientific writing. Additional information on laboratory formatting and MLA formatting can be found in the laboratory formatting guide on the student course page (Canvas) and will be covered thoroughly in class!

Daily Notebook

All Students should use the *Exploring Creation with Biology* Student Notebook to complete all of the following assignments for each module:

- **Required:** Work and answers to the On Your Own (OYO) questions found throughout the reading within each module.
- **Required:** Work and answers to the Study Guide Questions at the end of each Module.
- Optional: Notes from reading the module.
- Optional: Notes from attending lecture.

- Even if you are not a note taker, always have your notebook on hand during class to jot down important information, dates, reminders, and sometimes hints on what to study for a given test!
- **Optional:** Work and answers to the Module Test found in the Solutions and Tests Manual.
 - **Note:** You may use these tests to study for your module exam, which will be administered through our student portal. I refer to them from time to time as **“Practice Tests,” though they are not labeled as such.**
 - If students correct their answers in different colored ink, this will help when studying!

Notebook Checks

This biology course has 16 modules. Every 3-4 modules, parents will check their student's notebook for completion of both daily work and lab reports.

This grade is based on completion, not the accuracy of the answers.

Students should check the answers to their daily work by referring to the Solutions and Tests Manual and then direct any questions regarding their work to me via email. I will email instructions for how to complete a notebook check when assignments are due.

Extra Credit

The instructor reserves the right to offer or not offer extra credit opportunities in the form of additional exam questions, homework assignments, etc.

Due Dates and Late Policy:

All due dates are labeled on the course calendar found on your Canvas Course page. Students will be reminded of due dates at the beginning of each lecture.

Students are responsible for keeping track of all scheduled due dates and are **responsible for any changes announced during lectures and/or on Canvas.**

Exams are due by 11:59 p.m. on the Monday following the completion of a module.

Exams can be accessed on the Wednesday of the second week of each module. This means that students will have 5 days from the time that a test is posted to open and complete it. I do not recommend accessing the exam until students have attended or watched the recording of the second lecture of each module. This way, students will not miss anything covered in class, as they are responsible for all lecture material.

A 10% late penalty will be applied for exams turned in up to a week late, and another 5% late penalty will be added thereafter.

I do not approve student extension requests. Parents must email requests for extensions for situations beyond the student's control. If an extension is requested, please explain the situation in the email. If the extension is approved, the late penalty will be waived.

Class Canvas Portal:

Upon registration for this course, you will be given access to my Biology Student Portal on Canvas.

Through this portal, all students can log into the live lectures, view important class information, submit course assignments, and view their grades.

NOTE:

- Live, online lectures will be presented through Zoom.
- You do not need to download any application-specific software on your computer to attend the lectures.
- It is recommended, however, that the connection be made from a device with Wi-Fi or Ethernet access.
 - Ethernet access will give students the highest quality for the live class.

Weekly Live Lecture:

Each section (live or recorded) will follow the live lecture schedule in the table below:

Option Number	Lecture Day	Lecture Time
4	Thursdays	11:30 AM – 1:00 PM (EST)

A detailed calendar with due dates is available on the course Canvas page.

Live Lecture Attendance Policy:

The instructor does not require attendance at the online lectures but highly recommends that students attend as many of the live lectures as possible. Having said this, all lectures are recorded and posted on Canvas if an absence from class is necessary or for those whose schedules do not allow

them to attend the live class. As registered academy students, you have access to the videos for the entire year.

Please Note:

- **If a class is missed, students are required to listen to the recording before the next class if possible (or as soon as possible).**
- **Recorded/Graded Students are also required to watch every recording.**

Critical course information will be provided during the lecture, and all students are responsible for this information even if they are not present. The instructor will discuss upcoming due dates, holidays, and exam averages during class. Additional information and review are also provided beyond the scope of the text during the lecture, for which students may be held responsible on the exam.

Of course, recordings are also a great tool when you need to re-listen to parts of the lecture to reinforce your understanding of any given concept.

Academic Dishonesty & Conduct:

Academic dishonesty is any type of cheating that occurs on any exercise related to this course. It can include plagiarism (the use of anyone else's work that is not your own). No form of cheating will be tolerated! Cheating includes but is not limited to copying homework, falsifying reasons for missing class, copying other students' exams/homework/answers, impersonating a parent, having someone else log in to Canvas to complete material on a student's behalf, or plagiarizing material someone else has written and claiming it as

your own. **Do not copy and paste information from the web in your lab reports or tests!**

All course assignments must be written in your own words. Plagiarism will not be tolerated, including verbatim copying of text from the internet and/or paraphrasing information from a source and not citing it.

Be sure to cite a reference for any information that you did not conceive for the first time as a scientific pioneer! ☺

Assignments that have been cheated on will receive 0 points, and the parent will be notified.

The online class environment requires special rules to minimize distractions and enable everyone to maximize the benefit of attending class. As the instructor, it is my role to provide the best learning environment possible. My rules include:

1. Treat my classroom as if we were in a physical classroom together.
2. Do not talk or type while I am lecturing unless you have a question or we are having a class discussion.
3. Do not multitask during the lecture, please. This includes the use of mobile devices/tablets, playing games, using social media, or engaging in any other online activity.
4. Please do not disrupt the lecture with messages if you join the meeting late or must leave early. It will be your responsibility to watch the recording to catch up on missed material later.
5. Come to class prepared! Bring your textbook, notebook, pen/pencil to every class, and make sure you have read the appropriate material to be

covered in each lecture prior to class. We will cover one module every two weeks.

- Example: We will cover the first half of Module One during week one. You should read approximately the first half of Module One before the first class. We will cover the last half of Module One during week two. I expect the rest of the module to have been read by the time you come to our second class.
6. Please use, but do not abuse, the emotes in Zoom. If you have a question, feel free to use the raised hand emote.
 7. Remember, these lectures are recorded. Please make sure all conversation is appropriate for the classroom setting. Please do not share links to YouTube, Facebook, other social media, or email addresses while the class is being recorded. Your privacy is of the utmost importance to us!
 8. **Do not use inappropriate or rude language in class** (Cursing or disrespect to teacher or other students). And **do not use “edgy” language in class. Examples of “edgy” language that I do not allow in my class:**
 - “OMG” (Which implies “Oh My God”)
 - “crap”
 - “screw”
 - “sucks”
 - “pi _ _ es me off”

We want to keep our conversation glorifying to Christ and edifying to one another. Students who use edgy language will be given a warning in class, and those who use inappropriate language will be immediately ejected from class and an email will be sent to his or her parents.

9. If you join the class before lecture time, feel free to use your camera and the chat box. Often music or a relevant scientific video will be playing 5-15 minutes before class starts.
10. I will answer questions regarding due dates and the course at the beginning and/or end of the lecture if time permits. Please save course-relevant questions for those times or email me outside of class time.

Thank you in advance for honoring these requests and working to make this class a great interactive experience for everyone!

Helpful Tips for Success in Biology:

- **Do not miss class.**
- **For Live Students:** The live lectures allow students to interact directly with the instructor, and any confusion can be cleared up early during the lecture. Some topics may be expanded upon during lectures to help students better understand and be better prepared for the module exam. Specific details for assignments may be covered in class that you do not want to miss!
- **For 'Recordings'** (my pet name for recorded/graded students): Be sure to watch the recording of the live lecture each week for the same reasons stated above. If there is any confusion on a given topic, be sure to email me with your questions!
- **Read the material before class or watch the recording.** Emphasis is placed on reviewing material from the book, followed by practice problems when applicable. Historically, students get more out of lectures if they have read the material first and come prepared with questions about material that may have been confusing. Students also

tend to benefit more from in-class practice problems when they have read first.

- **Keep up with all Daily Notebook work.** Your notebook check is an easy “A” **WHEN** you keep up with your work, but it can be so hard to catch up once you get behind!
- **Turn in all exams and assignments on time.** Late turn-ins are the easiest way to lose points from your grade. This Biology course is a cumulative study, so staying on task and up to date is critical for success!
- **Ask questions during and after the lecture (Recorded/graded students, email me).** Again, this course will build upon previous knowledge as we progress through the material. It is important to ask questions as soon as something is confusing so that you do not become lost when more complex material is covered down the road. The only “dumb” question is the one not asked!
- **Flashcards are your friend.** I encourage students to make flashcards to help them remember key terms, concepts, and units. [Quizlet.com](https://quizlet.com) is a wonderful site that has flashcards and study games preprogrammed for this course.
- **Keep an updated equation sheet.** Keep a single 3 x 5 card updated with equations as you come across them. The sheet will be an excellent reference for you and useful to look back upon in other science courses.
- **Start your laboratory reports ASAP.** If you are working on a module that contains a Formal Laboratory Report, get started on the experiment and the report as soon as possible. Doing so will give you adequate time to ask questions and proofread!
- **Take advantage of bonus points.** When bonus points are offered in the form of additional assignments, exam questions, or discussions,

students should take advantage of these opportunities. Keep an eye out for them!

- **Use the Recordings as a study tool (even if you are a live student)!**

One of the beauties of having access to the recordings of your classes is that you may go back and view the explanation of any subject/concept that you may be struggling with. Remember, you may fast forward/rewind to the places in the recording where your trouble spots may be without having to watch the entire recording!

I look forward to a wonderful year together!

Mrs. Edmondson (Mrs. E)