

## **Advanced Biology Anatomy and Physiology**

Teacher: Christine Filipek

I suggest that students or parents print this syllabus and keep it in their homeschool records for reference throughout the year.

About the Teacher/Contact Info:

Christine Filipek

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Greetings!

I look forward to having you in class! I live on a small farm in southeast Michigan with my wonderful family. My husband, who is a music teacher, and I have homeschooled our children for over 20 years. Autumn, Wesley, and Ellie graduated from Pensacola Christian College. Molly is studying veterinarian medicine. We LOVE animals, we have 2 horses, a goat, tons of chickens, 3 turkeys (named Thanksgiving, Christmas, and Easter), a bunny, several cats, a parrot, a lovebird, and 3 dogs, Pete, Gus, and Tucker. We have had the opportunity to raise many domestic and wild animals. I love gardening, reading, sewing, watching movies (going to the drive-in), and hanging out with my family! Besides teaching my own children over the years, I also helped several families in my home by sharing my love for science. I love the hands-on aspect of science. It helped us understand so much more about what we were learning and it was so much FUN! I own and operate REACH Tutorial, teaching a variety of science classes and Latin to all ages. Both my husband and I have been very active in our local and state homeschool groups. We have served on the boards of two local homeschool groups for over 15 years and look forward to helping other homeschool families continue on this awesome journey.

I am also very passionate about helping others know our Creator. Studying Anatomy and Physiology allows us to understand how creative God is and I desire that creation science be taught to our children. I have chosen this curriculum that brings God the Glory and will emphasize God's creative touch when He created us as I teach. I desire to help you understand that you are truly fearfully and wonderfully made!

### Class Description

This advanced biology course covers both the anatomy and physiology for each system of the body. I will also be introducing some disease processes that occur in each of these systems. I will be using experiences as well as medical research when introducing scenarios throughout class. Please note that we will be covering the reproductive system in module 16. This book does have accurate, respectful illustrations and descriptions. We will only be discussing the second half of Module 16 in class.

- Module 1 – Introduction to Anatomy and Physiology
- Module 2 – Histology: The Study of Tissues

- Module 3 – The Integumentary and Skeletal Systems
- Module 4 – The Skeletal System Histology and Movement
- Module 5 – The Muscular System Histology and Physiology
- Module 6 – The Skeletal Muscle System
- Module 7 – The Nervous System
- Module 8 – The Central Nervous System
- Module 9 – The Peripheral Nervous System
- Module 10 – The Endocrine System
- Module 11 – The Cardiovascular System
- Module 12 – The Lymphatic System
- Module 13 – The Digestive System
- Module 14 – The Respiratory System
- Module 15 – The Urinary System
- Module 16 – The Reproductive System

#### Grade Level and Prerequisites

This course is open to high school students in grades 9-12.

Students who have taken high school Biology and Chemistry courses will be very well prepared for this course and will have a much better understanding of what we will be discussing.

Apologia recommends a high school Chemistry course so you will understand the information presented about chemistry. The topics covered that relate to chemistry are pH levels, charged atoms (ions), elements and their abbreviations, and a basic understanding of chemical equations. We will discuss these in class so you should be ok to take this class if you haven't had chemistry.

#### Credit:

This can be used as a full year high school science credit. This course in conjunction with Biology prepares students to take the Advance Placement (AP) or College Level Examination Program (CLEP) tests.

#### Supplies and Materials:

- The Human Body (Advanced Biology) Student Textbook, 2nd Edition (Required)

Publication Date: 2013

ISBN: 1935495720

ISBN-13: 9781935495727

- Lab Kit – needed 2nd Semester Cow’s eye, Sheep’s Heart, Fetal Pig. (Required)
- Dissecting kit supplies (Required for 2nd semester. Please order prior to 2nd semester.)
- Advanced Biology 2nd Edition Student Notebook (Optional)

ISBN 978-1-940110-38-7

- The Anatomy Coloring Book 4th Edition. (Optional)

By: Wynn Kapit, Lawrence M. Elson

ISBN: 0321832019 / ISBN-13: 9780321832016

Listed below are a few places you may purchase the above materials:

- [www.Apologia.com](http://www.Apologia.com)
- [www.Christianbooks.com](http://www.Christianbooks.com)
- [www.Homesciencetools.com](http://www.Homesciencetools.com)

Grading Scale:

90-100 = A

80-89 = B

70-79 = C

60-69 = D

59 and below = F

Below is a chart showing the points possible for each assignment each semester. The students will receive a grade for 1st Semester and 2nd Semester.

Assignment Points Awarded

Discussions

On Your Own Assignments (if completed and corrected)

Individual Class Presentations (Must complete all listed requirements)

Quizzes (Must be done on time to receive credit)

Study Notes (100 points if complete, 0 points if incomplete)

Exams (Must be completed on time to receive credit)

Lab Sheets (Must follow the rubric)

## Lectures

Online lectures will be 90 minutes each week.

## Homework

- Discussions will always be due prior to class

(We will be going over the discussions first thing in class)

- On Your Own Assignments are due prior to class. Please make sure you have reviewed them and looked up the answers at the end of your chapter. This is to help you make sure you are understanding the material.

- Lab Sheets – must be fully completed and typed per instructions.

- Study Notes -These will be graded only on complete / uncomplete. These are put together in order to help you learn how to take good notes in preparation for college course work.

- Individual Class Projects will be presented at the beginning of class. Please come prepared.

All homework will be uploaded onto the course shell. In order to receive credit for the assignment it must be posted by the time and date in the calendar.

1. Posted on the due date: 100% of points awarded
2. Posted after the due date: 50% of the points awarded
3. Never turned in within the semester: 0% of the points awarded.

## Quizzes / Exams

- Quizzes will be taken after every module. There will be 2 attempts for each quiz.

1. Quizzes taken by due date: 100% points awarded
2. Quizzes taken after the due date: 0% points awarded

- There are 5 exams throughout this class. Only 1 attempt for the exams.

1. Exams taken on Due date: 100% points awarded
2. Exams taken after due date: 0% points awarded

## LABS

- Most labs will be done at home on your own time
- Lab sheets with the recordings of the lab results will need to be uploaded in order to receive credit.

- There are 3 labs that we will do together. I will be available to answer questions.

- These labs will be done after the class lecture.
- I will be available 1 hour longer than the normal class.
- The labs that will be done in class are:

1. Cow's Eye dissection (Second Semester)
2. Cow's Heart Dissection (Second Semester)
3. Fetal Pig Dissection (Final project Second Semester)

\*\*\*Please make sure you have these supplies prior to second semester.