

## **Berean Christian High School Conceptual Physics Syllabus**

Room	A-5, Period 6
Instructor	Mrs. Sandra Hollenbeck
Course Philosophy	<p><b><i>“For by Him all things were created, in heaven and on earth, visible and invisible, whether thrones or dominions or rulers or authorities—all things were created through Him and for Him. And He is before all things, and in Him all things hold together.” Colossians 1:16-17</i></b></p> <p>Physics is the most basic of the living and nonliving sciences. All other sciences are built on the knowledge of physics. Physics is the branch of knowledge that studies the physical world. The study of physics is as small as the study of atoms to as large as the study of the universe. Conceptual physics focuses on understanding the concepts of physical phenomena with an emphasis on the majesty of God's creation and wisdom.</p>
Contact	<a href="mailto:bchscp.hollenbeck@gmail.com">bchscp.hollenbeck@gmail.com</a> Office phone: (925)945-6464
Textbooks	Conceptual Physics: Paul G Hewitt Textbook, 9 <sup>th</sup> edition Conceptual Physics: Concept Development Exercises Conceptual Physics: Lab Manual

Grading Scheme	<u>Quarter Grades:</u> Tests, Quizzes and Projects: 40% Labs: 20% Homework: 20% Classwork and Participation 20%	<u>Semester Grades:</u> 1 <sup>st</sup> Quarter: 40% 2 <sup>nd</sup> Quarter: 40% Final Exam: 20%
Tests and Quizzes	There will be a test and/or quiz given nearly every week of the year. Tests are on one chapter or two. Quizzes will be given on book chapters and class notes. Students are responsible for knowing when tests and quizzes are given each week. They will be posted in Google Classroom and on Renweb.	
Labs	There is normally at least one lab per week, usually on block day. Labs are an essential part of this college preparatory physical science course and cannot be made up if missed. Up to three labs will be excused per semester for Berean-excused absences. Students will receive 0% credit for labs missed after three in one semester.	
Projects and Field Trip	There will be two projects due this year, the egg drop project and steam can engine project. Labs that tend to be more extensive will be put in the project category. There is one field trip scheduled in the fall for all the physics classes to go to the Exploratorium.	
Homework	In most cases, homework will be submitted via Google Classroom. There will be two to three homework assignments each week consisting of reading notes, watching videos, physics problems and activity sheets. Students may use additional optional resources provided in Google classroom as desired.	
Classwork	Classwork includes note-taking, in class activities, problem sets and conceptual development activity sheets. Classwork is due at the end of class unless otherwise stated. Classwork not completed in class will be due the next day.	

Participation	<p>It is essential that all students have the opportunity to learn. Students will receive 4 classwork points per day, 2 for listening and 2 for participation. If a student does not listen quietly when the instructor is talking and follow all directions he or she will lose one listening point. If a student is not actively involved in all assigned tasks, he or she will lose one participation point. If additional points are lost, the policies and procedures described in the “Code of Conduct” section of the Berean Student-Parent Handbook (pages 19 – 27) will be applied.</p>
Late work policy	<p>Homework is due on the due date <i>before</i> the bell rings at the beginning of class. Late work will be marked down 10% for each day late. If students have an excused absence, they must document the dates of their absence when submitting late work to avoid the late penalty.</p>
Course Assistance:	<p>It is my goal to encourage you and help you to realize your unique God-given potential and to equip you to impact our world effectively for Christ.  <b><i>I encourage you to come to me for help!</i></b></p> <p>I will be available for help on most <b><i>Mondays, Tuesdays and Thursdays after school from 3:05-4:00</i></b> p.m. If you would like to meet with me during lunch time instead, please let me know. The best way to reach me outside of school hours is via Google classroom or e-mail: <a href="mailto:bhcscp.hollenbeck@gmail.com">bhcscp.hollenbeck@gmail.com</a> . Be sure to include your name and a detailed explanation of your question.</p>
Learning Objectives:	<ol style="list-style-type: none"> <li>1. To understand that the science of physics is observing what God has set into motion.</li> <li>2. To learn how man has interpreted the way the natural world works.</li> <li>3. To understand the interrelationships between different physical phenomena and how it effects everyday life.</li> <li>4. To help develop critical thinking and problem-solving skills.</li> <li>5. To help students gain a greater appreciation for our God as our creator and our world which he has created.</li> </ol>

### Course Outline

#### Fall Semester

A. Mechanics: Chapters 1 - 16

B. Properties of Matter  
Chapters 17 - 20

#### Spring Semester

C. Heat: Chapters 21 - 24

D. Sound and Light  
Chapters 25 - 31

E. Electricity and Magnetism  
Chapters 32 – 36

***“Honor one another above yourselves.”***  
Romans 12:10b

### **Conceptual Physics Class Rules**

**These rules are designed to protect your freedom and the freedom of your classmates to learn.**

1. Listen and follow directions.
2. Raise your hand during lessons.
3. Respect your classmates and your teacher.
4. Keep your hands, feet, and objects to yourself.

### **Conceptual Physics Class Procedures and Expectations**

1. Turn your cell phone off or silence it and place it in the assigned phone pocket as you enter the classroom.
2. Be in your assigned seat when the bell rings.
3. Keep your iPad off and put away or face down unless otherwise instructed.
4. Join Apple Classroom when your iPad is in use and keep the “Allow Teacher To” settings to “Always” for “Lock Apps and Device” and “AirPlay and View Screen.”
5. Store your backpack in the back of the classroom or on the floor near your feet.
6. Follow lab safety procedures, clean up and put away all equipment when the lab is finished.
7. Wait in your seats until you are dismissed.

**Note:** All policies and procedures contained in the Berean Student-Parent Handbook apply. Rules, procedures and/or expectations may be modified at the teacher's discretion during the school year.

***“Only conduct yourselves in a manner worthy of the gospel of Christ, so that whether I come and see you or remain absent, I will hear of you that you are standing firm in one spirit, with one mind striving together for the faith of the gospel;”***  
Philippians 1:27

**Berean Christian High School  
CONCEPTUAL PHYSICS**

Mrs. Hollenbeck

**“FOR BY HIM ALL THINGS WERE CREATED, IN HEAVEN AND ON EARTH, VISIBLE AND INVISIBLE, WHETHER THRONES OR DOMINIONS OR RULERS OR AUTHORITIES—ALL THINGS WERE CREATED THROUGH HIM AND FOR HIM. AND HE IS BEFORE ALL THINGS, AND IN HIM ALL THINGS HOLD TOGETHER.”  
COLOSSIANS 1:16-17**

I have read and understand the BCHS CONCEPTUAL PHYSICS Course Outline for 2018-2019.  
(Please e-mail me, [bhcscp.hollenbeck@gmail.com](mailto:bhcscp.hollenbeck@gmail.com), if you have any questions.)

Student Name (printed):

Date:

\_\_\_\_\_  
Student Signature:

\_\_\_\_\_  
Class Period: 7

Parent or Guardian Name (printed):

Date:

\_\_\_\_\_  
Parent or Guardian Signature:

\_\_\_\_\_  
\_\_\_\_\_

(Optional) Parent or Guardian Name (printed):

Date:

\_\_\_\_\_  
Parent or Guardian Signature:

\_\_\_\_\_  
\_\_\_\_\_