

PHYSICS SYLLABUS 2011-2012

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In the beginning God created... All things were made through Him. Nothing was made without Him. There are things about God that people cannot understand – His eternal power and all the things that make Him God. But since the beginning of the world those things have been easy to understand. They are made clear by what God has made... It is by faith that we understand that the whole world was made by God's command. (Gen 1:1; John 1:3; Rom 1: 20; Heb 11:3) [International Children's Bible]

I. Course Objectives:

- A. Increase in wisdom and revelation knowledge of the Divine Creator
- B. Know and understand chemistry and chemical principals
- C. Master the Scientific Method of investigating
- D. Be reminded of the fact that:
 1. There is a purpose for **YOUR** existence
 2. God has made provision for **YOUR** purpose
 3. God has empowered **YOU** for greatness

II. Course Outline:

- A. First Nine Weeks: Chapters 1-4
- B. Second Nine Weeks: Chapters 5-7
- C. Third Nine Weeks: Chapters 8-9
- D. Fourth Nine Weeks: Chapters 10, 14, 22

III. Course Requirements:

- A. Required Texts: *Physics,, BJU press*
- B. Supplies: Calculator

IV. Course Grading System:

- A. Classwork/Homework – 15%
- B. Laboratory Reports and Special Projects – 20%
- C. Quizzes – 20%
- D. Tests – 45%

V. Course Expectations:

- A. Homework policy – Homework assignments will receive a grade of 100 if turned in on time. If an assignment is incomplete or not turned in, it will receive a grade of 0. If the assignment is turned in completed when the class meets again, the grade will be changed to a 50.
- B. Extra Credit work – No extra credit for students who have chosen not to attend class, not to participate in class, not to study or do homework, nor perform well on tests.
- C. Final Exam – The final exam will be comprehensive and will count for 20% of the final grade.
- D. Make-up – Quizzes will not be made up. Excused absences on a test day will allow a make-up test.
- E. Prompt and Prepared – Students are graded on being on time, and being prepared (having needed supplies and assignments) before class starts.
- F. Expect a QUIZ daily!

Physics Syllabus

First Semester

First 9 Weeks

Week 1:	Ch 1: Foundations of Physics
Week 2:	Ch 2: Measurement
Week 3:	<u>Test 1</u> and Ch 3: Motion in One Dimension
Week 4:	Ch 3: Motion in One Dimension
Week 5:	Ch 3: Motion in One Dimension and Lab
Week 6:	<u>Test 2</u> and Ch 4: Vectors and Scalars
Week 7:	Ch 4: Vectors and Scalars
Week 8:	Ch 4: Vectors and Scalars and Lab
Week 9:	Ch 4: Vectors and Scalars and <u>Test 3</u>

Second 9 Weeks

Week 10:	Ch 5: Motion in a Plane
Week 11:	Ch 5: Motion in a Plane and Lab
Week 12:	<u>Test 4</u> & Ch 6: Dynamics
Week 13:	Ch 6: Dynamics
Week 14:	Ch 6: Dynamics and Lab
Week 15:	<u>Test 5</u> and Ch 7: Circular Motion
Week 16:	Ch 7: Circular Motion
Week 17:	Ch 7: Circular Motion and Lab
Week 18:	Semester Exam: Ch 1-7

Physics Syllabus

Second Semester

Third 9 Weeks

Week 19:	Ch 8: Applying Newton's Laws 8a – 8b
Week 20:	Ch 8: Applying Newton's Laws 8a – 8b
Week 21:	<u>Test 6</u> and Ch 8: Applying Newton's Laws
Week 22:	Ch 8: Applying Newton's Laws 8c – 8d
Week 23:	Ch 8: Applying Newton's Laws 8c -8d and Lab
Week 24:	<u>Test 7</u> and Ch 9: Motion in One – Dimension
Week 25:	Ch 9: Motion in One – Dimension
Week 26:	Ch 9: Motion in One – Dimension
Week 27:	Ch 9 cont'd and <u>Test 8</u>

Fourth 9 Weeks

Week 28:	Ch 10: Conservation of Energy
Week 29:	Ch 10: Conservation of Energy
Week 30:	<u>Test 9</u> & Ch 14: Expansion and Temperature
Week 31:	Ch 14: Expansion and Temperature
Week 32:	Ch 14: Expansion and Temperature and Lab
Week 33:	<u>Test 10</u> and Unit 4: Electromagnetics
Week 34:	Unit 4: Electromagnetics and Lab
Week 35:	Physics Course Review
Week 36:	Final Comprehensive Exam