PHYSICS 1415
Physical Science I

Western Texas College

I. Basic Course Information
   A. Course Description: This course is the first of two courses designed for non-science majors that surveys topics from physics and chemistry. The second course surveys topics from geology, astronomy and meteorology.
   B. Co-requisite: Math 1314 or its equivalent.

II. Student Learning Outcomes
   A. Students will learn to use appropriate equipment related to physical science in a laboratory environment. Well-written laboratory reports will be used to assess learning.
   B. Students will be able to quantitatively and qualitatively explain key concepts and solution methods for problems concerning physics and chemistry.

III. Testing Requirements
   A. Students are required to take the exams in a proctored setting.
   B. Students are allowed to use their book or notes and a calculator while testing.

IV. Course Requirements
   A. There will be numerous lab activities throughout the course.
   B. There will be homework for every chapter.
   C. There will be a cumulative chapter quiz for each chapter.
   D. There will be a learning project.

V. Information on Books and Other Course Materials
   1. Optional Book- Conceptual Physical Science, Hewitt, ISBN: 978-0-134-060484 (includes access code)
   2. Calculators: A scientific calculator is required. Cell phones cannot be used.
   3. Required Access Code- Mastering Physics– ISBN: 978-0-134-069814

VI. Grading Breakdown
Homework……...20%
Quizzes……..25%
Lab……...25%
Learning Project……...30%

VII. Other Policies, Procedures and important dates. Please refer to the WTC Catalog for the following
   . Campus Calendar
   A. Final exam schedule
   B. How to drop a class
   C. Withdrawal information
   D. Student Conduct/Academic Integrity
   E. Students with disabilities

VIII. Course Content

Part One: Physics	1. Patterns of Motion and Equilibrium 2. Newton's Laws of Motion 3. Momentum and Energy 4. Gravity, Projectiles, and Satellites 5. Fluid Mechanics 6. Temperature, Heat, and Thermodynamics 7. Heat Transfer and Change of Phase 8. Static and Current Electricity 9. Magnetism and Electromagnetic Induction 10. Waves and Sound 11. Light
Part Two: Chemistry	12. Atoms and the Periodic Table 13. The Atomic Nucleus and Radioactivity 14. Elements of Chemistry

Disclaimer: Content is subject to change at the instructor’s discretion.

Last Modified: February 15, 2018