

**PHSC 1013 ACTS Common Course – PHSC 1004 (when taken with PHSC 1031)**  
**Introduction to Physical Science - Section 001**  
**Spring 2016**

Class Meeting Time and Location:

Lecture: MWF, 9:00 AM – 9:50 AM, McEver 152

Instructor:

Benjamin L. Davis, PhD

Office: McEver 11

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Email: [bdavis47@atu.edu](mailto:bdavis47@atu.edu)

Office Hours:

Mondays & Fridays: 10:00 AM – 10:50 AM & 12:30 PM – 1:50 PM

Wednesdays: 10:00 AM – 10:50 AM

Catalog Course Description:

Prerequisite: A score of 19 or above on the mathematics section of the ACTE exam or completion of MATH 0903, Intermediate Algebra, with a grade of "C" or better. An introduction to the natural laws governing the physical world, with emphasis upon the discovery and development of these laws and their effect upon man. Includes topics in physics and chemistry and may include other topics from other disciplines in physical science such as astronomy, meteorology, and/or geology. Note: May not be taken for credit after completion of two laboratory courses in the physical science disciplines.

Textbook:

An Introduction to Physical Sciences, 13<sup>th</sup> Edition, by Shipman, Wilson & Higgins.

Justification/Rationale for the Course and Its Objectives:

The student will explain, describe, discuss, recognize, and/or apply knowledge and understanding of the following: scientific method, measurement and error, force and motion, work and energy, temperature and heat, electricity and magnetism, chemical elements, chemical bonding, and chemical reactions and mole concepts.

Blackboard:

Grades as well as various documents such as the syllabus will be posted on Blackboard, which may be accessed at <https://bblearn.atu.edu/>.

FERPA:

Due to the Family Educational Rights and Privacy Act (FERPA), grades can only be communicated in direct conversation with (and only with) the student or via Blackboard. Email is not considered a secure means of communication for grades. Please understand that I will not answer any grade-related questions via email.

Assessment:

The course graded on the following scale: A ≥ 87.5% > B ≥ 75% > C ≥ 62.5% > D ≥ 50% > F. Grades will be precisely calculated and arbitrary rounding will not occur. Contributions to the overall grade come from each of the following categories according to the percentage weights:

- Quizzes (25%) – In-class quizzes will be given in order to assess attendance and comprehension. Quizzes will be worth two points, one for attendance and one for a correct answer. Quizzes will serve also as homework because quiz questions will be chosen randomly from Exercises in the textbook, which may be worked ahead of time. Textbook and notes may be consulted. At the end of the semester, your lowest two quiz scores will be dropped.
- Exams (50%) – Four exams, 12.5% each. Textbook and notes may be consulted during the exam.
- Final Examination (25%) – the Final will be comprehensive. Textbook and notes may be consulted during the exam.
  - Students will be assigned a grade for the Final that is equal to the average of their four exams minus one standard deviation. Students may choose to skip the Final and accept this grade or make an attempt to achieve a better grade by actually taking the Final.

Attendance / Make-up Policy:

Since your two lowest quizzes grades will be dropped, no make-up quizzes will be offered. Exams may be made-up by appointment for excused absences only (documentation and forewarning is required). The Final Examination may not be made-up because it is optional.

Schedule (Tentative):

January 11 – 13: Chapter 1 – Measurement

January 15: Chapter 2 - Motion

**Monday, January 18: Dr. Martin Luther King, Jr. Day**

January 20: Chapter 2 – Motion

January 22 – 25: Chapter 3 – Force and Motion

January 27 – 29: Chapter 4 – Work and Energy

February 1 – 3: Review

**Monday, February 5: Exam 1**

February 8 – 10: Chapter 5 – Temperature and Heat

February 12 – 15: Chapter 8 – Electricity and Magnetism

February 17 – 19: Chapter 9 – Atomic Physics

February 22 – 24: Chapter 10 – Nuclear Physics

February 26 – 29: Review

**Wednesday, March 2: Exam 2**

March 4 – 7: Chapter 11 – The Chemical Elements

March 9 – 11: Chapter 12 – Chemical Bonding

March 14 – 16: Chapter 13 – Chemical Reactions

March 18: Review

**March 21 – 25 – Spring Break**

March 28: Review

**Wednesday, March 30: Exam 3**

April 1 – 4: Chapter 15 – Place and Time

April 6 – 8: Chapter 16 – The Solar System

April 11 – 13: Chapter 17 – Moons and Smaller Solar System Bodies

April 15 – 20: Chapter 18 – The Universe

April 22 – 25 Review

**Tuesday, April 26: Exam 4**

**Wednesday, April 27: Reading Day**

**Friday, April 29, 8:00 AM – 10:00 AM: Comprehensive Final Examination**