PHYS 1415 — Physical Science I
Frank Phillips College

General Course Information
Credit Hours: 4
General Education Core Curriculum Course

Prerequisite
N/A

Course Description
Course is designed for non-majors and surveys topics from physics, chemistry, geology, astronomy, and meteorology, with an emphasis on physical phenomena. This course includes a laboratory. The topics include the scientific method and a survey of mechanics, matter, heat, optics, electricity, and magnetism.

THECB Approval Number 40.0101.51.03

Statement of Purpose
Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives Required for Life and Physical Sciences Courses
Courses in this category focus on describing, explaining, and predicting natural phenomena using the scientific method.

Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.

- **Critical Thinking Skills –** to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- **Communication Skills –** to include effective development, interpretation and expression of ideas through written, oral and visual communication
- **Empirical and Quantitative Skills –** to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- **Teamwork –** to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

Required Core Objective	Activity Related to Core Objective
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Students will read a curriculum related article supplied by the instructor and write an article review, including a summary and a critique that demonstrates effective development, interpretation, and expression of ideas.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Students will demonstrate understanding of their article by writing a short summary as a question on a test.
Communication – to include effective development, interpretation, and expression of ideas through written, oral, and visual communication	Using a method that will keep the student's identity secure, such as Socrative, they will be asked to evaluate the assignment with a few brief questions.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students will read a curriculum related article supplied by the instructor and write an article review, including a summary and a critique. Students will demonstrate critical thinking by showing they understand the main points of the article, and by critiquing the article.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Students will demonstrate critical thinking by identifying the places they demonstrated critical thinking in their article. They will do so by answering a question on a test.
Critical Thinking Skills – to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information	Using a method that will keep the student's identity secure, such as Socrative, they will be asked to evaluate the assignment with a few brief questions.
Empirical and Quantitative Skills – To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	Lab Demonstration: Each student will participate in a lab demonstration that includes the purpose of the lab, apparatus, data, calculations and conclusion.
Empirical and Quantitative Skills – To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	Lab Demonstration: Students will demonstrate understanding of their lab demonstration by answering a bonus question on a test.
Empirical and Quantitative Skills – To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions	Lab Demonstration: Using a method that will keep the student's identity secure, such as Socrative, they will be asked to evaluate the assignment with a few brief questions.
Teamwork – To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal	Students will participate in a lab demonstration that includes the purpose of the lab, apparatus, data, calculations and conclusion.
Teamwork – To include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal	Students will demonstrate understanding of their lab demonstration by answering a question on a test.
Teamwork – To include the ability to consider different points of view	Using a method that will keep the student's identity secure, such as Socrative, they will be asked to evaluate the assignment with a few brief questions.

Required Core Objective	Activity Related to Core Objective
and to work effectively with others to support a shared purpose or goal	

Learning Outcomes:
Upon successful completion of this course, students will:

1. Model physical phenomena with mathematical systems
2. Interpret and communicate technical information
3. Work with other students in a team investigation
4. Understand some logical or scientific systems
5. Visualize and Diagram physical processes

Methods of Evaluation
Students' successful completion of required assignments as well as participation in classroom learning activities will be the basis for assessing progress toward course objectives.

Category	Percentage
Homework assignments	5%
Laboratory Grade	25%
Exams	60%
Semester Exam	10%
Total	100%

The majority of your evaluation comes through traditional methods; however, participation in laboratory exercises and class discussion will also contribute to your grade.

Academic Honesty and Integrity
Students attending Frank Phillips College are expected to maintain high standards of personal and scholarly conduct. Academic dishonesty including, but not limited to, cheating, collusion (working with anyone else to produce work for which you take credit without the professor's permission), utilizing resources such as books and notes for a test without the professor's permission, and plagiarism is considered a serious offense and may result in disciplinary actions including:

- A grade of 0 for the test or assignment
- A semester grade of F for the course
- Administrative withdrawal from the course
- Academic suspension
- Notation of the student's transcript of "Academic Dishonesty."
- ***Faculty members have the right to assign a failing grade to a student who is guilty of academic dishonesty at any point during a semester. Faculty members may prohibit a student from dropping a course when academic dishonesty is discovered. However, if a student has dropped the course in accordance with the rules and dates applied to dropping a course and prior to the discovery of academic dishonesty, the grade of W will stand. Students currently enrolled in a course and students who have completed a course (A, B, C, D, CT, and I) may have a grade changed to an F if academic dishonesty is discovered. The faculty member must notify the student of the change to the final grade within one week

of facilitating the change. The student will have the opportunity to appeal the final grade change according to the college policy stated in the catalog.

Class Attendance
Regular attendance is necessary for satisfactory achievement. Therefore, it is the responsibility of the student to attend class in accordance with requirements of the course as established by the instructor.

Students will be excused from class without penalty when either representing the college in an approved activity or having an approved reason for not attending. Reasons for absences must be approved by the instructor of the course. These exceptions do not relieve the student of the responsibility of making up the missed work as designated by the instructor concerned.

Students who enroll in one or more college-preparatory course(s) because of TSI deficiency will be administratively withdrawn from all classes if the course in which they are excessively absent is their only preparatory course. For a student enrolled in more than one preparatory course, the student may be dropped from only the course affected by absences.

Any student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day, provided that proper notification of the absence is given to the instructor of the course missed. The student should notify the instructor within the first fifteen (15) days of the semester that he or she intends to be absent on the specified holy day.

Cell Phones and Other Electronic Devices Procedure:
Cell phones and electronic devices in the classroom create a distraction for both students and faculty. Cell phones are also considered suspicious during test taking. Therefore, Frank Phillips College outlines the procedure for handling cell phone usage in a classroom as follows:

1. First Offense: the student will be warned verbally by the instructor to turn off the cell phone or electronic device or by appropriate administrative personnel at distance sites. The instructor will make a notation of the infraction.
2. Second Offense: the student will be asked to leave the class period for the day and will receive zeros for any work done in class on that day; a student receiving instruction through remote connection at an off-campus site will be required to attend the class face to face in Borger from this class date forward.
3. Third Offense: the student will be administratively withdrawn from the class in which the infraction occurred and will receive no refund for the class.

Students should leave the college's main number with an appropriate contact in case of an emergency.

Borger: (806) 457-4200, ext. 0 or 886-5047 after hours
Dalhart: (806) 244-7669
Perryton: (806) 648-1450

Grievance Policy

If you have a dispute concerning your grade or policies in this class, it is your responsibility to FIRST contact the instructor, either by e-mail or in person, to discuss the matter. Should things remain unresolved after this initial contact, please follow the procedures described in the Academic Policies section of the Frank Phillips College Catalog. In the vast majority of cases, the matter can be resolved at the instructor/student level, and learning to communicate your concerns in a civilized manner is part of the college experience.

Important Information
Frank Phillips College is a Microsoft Office Campus. You must submit your electronic assignments in Microsoft Office programs only. If you do not have Microsoft Office, you may use one of the computer lab sites on campus for your class work.

Scans/Or Core Competencies That Will Be Addressed in the Class

Resources:
Allocates Time
Allocates Money
Allocates Material & Facility Resources

Information:
Acquires & Evaluates Information
Organizes & Maintains Information
Uses Computers to Process Information

Interpersonal:
Participates as a Member of a Team
Teaches Others
Serves Clients/Customers
Exercises Leadership
Negotiates to Arrive at a Decision
Works with Cultural Diversity

Thinking Skills:
Creative Thinking
Decision Making
Problem Solving
Seeing Things in the Mind's Eye
Knowing How to Learn
Reasoning

Technology:
Selects Technology
Applies Technology
Maintains & Troubleshoots Technology

Systems:
Understands Systems
Monitors & Corrects Performance
Improves & Designs Systems

Basic Skills:
Reading
Writing
Arithmetic
Mathematics
Listening& Speaking

Personal Qualities:
Responsibility
Self-Esteem
Sociability
Self-Management
Integrity/Honesty