Intro to Physical Science I – PHYS 1315 (Face-to-Face)

Course Syllabus: Spring 2020

"Northeast Texas Community College exists to provide personal, dynamic learning experiences empowering students to succeed."

Instructor: Mr. Mark Ellermann II

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	Monday	Tuesday	Wednesday	Thursday	Friday	Online
Office Hours	9:00 – 9:30 4:30 – 6:00	4:30 – 6:00	9:00 – 9:30 1:30 – 6:00	4:30 – 6:00	By Appointment	1:30 – 6:00 Mon – Thurs

This syllabus serves as the documentation for all course policies and requirements, assignments, and instructor/student responsibilities.

Information relative to the delivery of the content contained in this syllabus is subject to change. Should that happen, the student will be notified.

Course Description:
This course, designed for non-science majors, surveys topics from physics, chemistry, geology, astronomy, and meteorology.

3 credit hours
Lecture/Lab/Clinical: Three hours of lecture and three hours of lab each week.

Prerequisite(s): MATH 0305 or equivalent, or an appropriate placement score.

Student Learning Outcomes:
Upon successful completion of this course, students should (1) understand simple qualitative concepts, and (2) solve algebraic problems of physics and astronomy relating to:

1115.1) Linear motion (displacement, velocity, acceleration, force, and Newton's Laws).
1115.2) Energy, work, power, and the Law of Conservation of Energy.
1115.3) Momentum and the Law of Conservation of Momentum.
1115.4) Heat and thermodynamics
1115.5) Electricity and Magnetism
1115.6) Electromagnetic (transverse) waves and sound (longitudinal) waves.
1115.7) The solar system, stars, and universe.

College Student Learning Outcomes:

Critical Thinking Skills

CT.1 Students will demonstrate the ability to 1) analyze complex issues, 2) synthesize information, and 3) evaluate the logic, validity, and relevance of data.

Communication Skills

CS.1 Students will effectively develop, interpret and express ideas through written communication.

Empirical and Quantitative Skills

EQS.1 Students will manipulate numerical data or observable facts by organizing and converting relevant information into mathematical or empirical form

EQS.2 Students will analyze numerical data or observable facts by processing information with correct calculations, explicit notations, and appropriate technology.

EQS.3 Students will draw informed conclusions from numerical data or observable facts that are accurate, complete, and relevant to the investigation.

Teamwork

TW.2 Students will work with others to support and accomplish a shared goal.

Evaluation/Grading Policy:

Homework will represent 30% of your grade. There will be 4 tests and a Final Exam. The average of all midterm exams will represent 55% of your grade. The final exam will be the final 15% of your semester grade. The letter grading system is:

A (90% - 100%)
B (80% - 89%)
C (70% - 79%)
D (60% - 69%)
F (< 60%)

Required Instructional Materials:

An Introduction to Physical Science, 14th Ed.
Publisher: Cengage **ISBN Number:** 978-1-305-07913-7

Optional Instructional Materials:

The Cartoon Guide to Physics, by Larry Gonick and Art Huffman
** This book will not be referenced in class, but can serve as a convenient, alternate explanation for difficult concepts.

Minimum Technology Requirements:
You will need a scientific calculator (TI-30XIIS or eqiuvalent) or graphing calculator for this class.

Required Computer Literacy Skills:
You will need to be able to navigate Blackboard and WebAssign to access your online work.

Course Structure and Overview:
The course will taught as a lecture, with practice problems interspersed through the lesson. Homework will be online through WebAssign.

Communications:
Email will be responded to within 24 hours IF SENT SUNDAY-THURSDAY. Due to the lack of internet availability at my home, I cannot guarantee responses over the weekend, though I will do my best. You can also call my office during office hours if you need to speak with me but can't make it to campus. However, I prefer face-to-face discussions, especially if you have a question about a homework problem. Any information that I send out will be done in class, via Blackboard, or via NTCC email. I will NOT email sensitive information to email addresses that are not "@ntcc.edu".

Institutional/Course Policy:
Late work will not be accepted without prior approval by the instructor. Students and instructor are expected to treat each other with respect in and out of the classroom. Prompt attendance is expected for all class meetings. During lecture, students are expected to be attentive to the topic discussed. Students found being consistently inattentive will be asked to leave.

NTCC Academic Honesty/Ethics Statement:
NTCC upholds the highest standards of academic integrity. The college expects all students to engage in their academic pursuits in an honest manner that is beyond reproach using their intellect and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. This course will follow the NTCC Academic Honesty and Academic Ethics policies stated in the Student Handbook. Refer to the student handbook for more information on these subjects.

ADA Statement:
It is the policy of NTCC to provide reasonable accommodations for qualified individuals who are students with disabilities. This College will adhere to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to afford equal educational opportunity. It is the student's responsibility to request accommodations. An appointment can be made with the Academic Advisor/Coordinator of Special Populations located in Student Services and can be reached at 903-434-8264. For more information and to obtain a copy of the Request for Accommodations, please refer to the special populations page on the NTCC website.

Family Educational Rights and Privacy Act (FERPA):
The Family Educational Rights and Privacy Act (FERPA) is a federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's educational records. These rights transfer to the student when he or she attends a school beyond the high school level. Students to whom the rights have transferred are considered "eligible students." In essence, a parent has no legal right to obtain information concerning the child's college records without the written consent of the student. In compliance with FERPA, information classified as "directory information" may be released to the general public without the written consent of the student unless the student makes a request in writing. Directory information is defined as: the student's name, permanent address and/or local address, telephone listing, dates of attendance, most recent previous education institution attended, other information including major, field of study, degrees, awards received, and participation in officially recognized activities/sports.

Tentative Course Timeline (*note* instructor reserves the right to make adjustments to this timeline at any point in the term):

Chapter	Topic	Week	Key Dates*
1	What is Science?	1 & 2	
2	Motion	2 & 3	
	Exam 1	**4**	**2/12**
3	Force and Motion	4 & 5	
4	Work and Energy	5 & 6	
	Exam 2	**7**	**3/4**
5	Temperature and Heat	7 & 8	
6	Waves and Sound	8 & 9	
	Exam 3	**10**	**4/1**
7	Light	10 & 11	
8	Electricity and Magnetism	11 & 12	
	Exam 4	**13**	**4/22**
16	The Solar System	13 & 14	
18	The Universe / Review for Final Exam	14 & 15	
	Final Exam (comprehensive**)**	**16**	

**This calendar will be adjusted to the needs of the course. Changes will be based on the course progress. The in-class exam dates could be moved one or two days up or down. The Final Exam date is fixed and will not change.*