



PHYS 1315 – Introduction to Physical Science I

Course Syllabus: Fall 2019

“Northeast Texas Community College exists to provide responsible, exemplary learning opportunities.”

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| Office Hours | Monday | Tuesday | Wednesday | Thursday | Friday | Online |
|--------------|--------|---------|-----------|----------|--------|--------------|
| | Online | Online | Online | Online | Online | 4:00-6:00 pm |

The information contained in this syllabus is subject to change without notice. Students are expected to be aware of any additional course policies presented by the instructor during the course.

Catalog Course Description: This course emphasizes scientific principles that are taught at a nonscience major level. Basic concepts are presented in physics and astronomy. Each topic is discussed in the context of everyday life.

Prerequisite: MATH 0305 or its equivalent, or an appropriate placement score.

Required Textbook(s): This course will utilize Webassign online resources for homework and exams. Access to the assignments and the electronic copy of the textbook, *An Introduction to Physical Science* (14th Ed.), Shipman, Wilson, Higgins, Torres, Cengage Learning, Stamford, CT, 2018 is provided by access to Webassign on the internet. This course is participating in the Inclusive Access program this semester. Please refer to the instructions found in the “Start Course Here” folder in Blackboard to obtain your access code to Webassign.

Publisher: Cengage Learning
ISBN-13 Number (Student Edition): 978-1-305-07913-7

Recommended Reading(s): None

Other Course Requirements: A scientific calculator is required for this course.

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:

1. Linear motion (displacement, velocity, acceleration, force, and Newton’s Laws).
2. Energy, work, power, and the Law of Conservation of Energy.
3. Momentum and the Law of Conservation of Momentum.
4. Heat and thermodynamics.
5. Electricity and Magnetism.
6. Electromagnetic (transverse) waves and sound (longitudinal) waves.
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.

Teamwork

TW.2 Students will consider different viewpoints as a member of a team and work with others to support and accomplish a shared goal.

SCANS Skills: N/A

Course Outline:

| Chap. | Title | Week | Key Due Dates* |
|-------|-----------------------------------|-----------|-----------------|
| | Course Navigation | 1 | 8/30/19 |
| 1 | Measurement | 1 & 2 | 9/4/19 |
| 2 | Motion | 2 & 3 | 9/13/19 |
| 3 | Force and Motion | 4 & 5 | 9/25/19 |
| | Exam 1 | 5 | 9/27/19 |
| 4 | Work and Energy | 6 | 10/4/19 |
| 5 | Heat and Temperature | 7 & 8 | 10/16/19 |
| | Exam 2 | 8 | 10/18/19 |
| 6 | Waves and Sound | 10 | 10/30/19 |
| 8 | Electricity and Magnetism | 11 & 12 | 11/8/19 |
| | Exam 3 | 12 | 11/14/19 |
| | Thanksgiving Break | | |
| 16 | The Solar System | 14 & 15 | 12/6/19 |
| 18 | The Universe | 15 | 12/6/19 |
| | Final Exam (Comprehensive) | 16 | 12/12/19 |

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

Evaluation/Grading Policy:

| | | | |
|-------------------------|------|---------|----------|
| Exams (3 @ 20% each) | 60% | 300 pts | |
| Final Exam | 20% | 100 pts | |
| Homework from Webassign | 20% | 100 pts | |
| <hr/> | | | |
| Total | 100% | 500 pts | possible |

Homework will represent 20% of your grade. Online assignments are graded homework exercises posted on Webassign. Homework problems can be reworked an unlimited number of times. The last grade earned for each homework assignment will be posted for the final grade. The homework assignments for a unit are due on the dates listed above. The exams will become available in Webassign three calendar days before their due date. There are no make-up assignments.

There will be 3 Unit Exams and a comprehensive Final Exam. Online exams are each available on the Webassign website opening three calendar days before the listed exam due date. The Unit 2 and Unit 3 Exams as well as the Final Exam will be administered in a proctored facility of your choice. Testing centers at other colleges and universities may access a fee. Only one attempt is allowed for each online exam. Course averages will be updated in Blackboard after each exam.

Grading Scale:

A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = 0-59%

Student Responsibilities/Expectations:

Attendance: Students are expected to check in to the class daily on Blackboard and Webassign to find the assignments and communications from the instructor. Students are also expected to check their email daily in case there is a communication from the instructor that needs a timely response.

Email: The college's official means of communication is via your campus email address. The email address in Webassign should be your campus email address. Make sure you keep your campus email cleaned out and below the limit, so you can receive important messages. Students are expected to monitor their email regularly (daily) to check for important announcements.

NTCC Academic Honesty Statement:

"Students are expected to complete course work in an honest manner, using their intellects and resources designated as allowable by the course instructor. Students are responsible for addressing questions about allowable resources with the course instructor. NTCC upholds the highest standards of academic integrity. This course will follow the NTCC Academic Honesty policy stated in the Student Handbook."

Academic Ethics:

The college expects all students to engage in academic pursuits in a manner that is beyond reproach. Students are expected to maintain complete honesty and integrity in their academic pursuit. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action. Refer to the student handbook for more information on this subject.

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 Shannin Garrett, Academic Advisor/Coordinator of Special Populations

located in the College Connection. She can be reached at 903-434-8218. For more information and to obtain a copy of the Request for Accommodations, please refer to the [NTCC website - Special Populations](#).

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.

6 Drop Rule:

"Students who enrolled in Texas public institutions of higher education as first-time college students during the Fall 2007 term or later are subject to section 51.907 of the Texas Education Code, which states that an institution of higher education may not permit a student to drop (withdraw with a grade of "W") from more than six courses. This six-course limit includes courses that a transfer student has previously dropped at other Texas public institutions of higher education if they fall under the law. Students should be sure they fully understand this drop limit before they drop a course. Please visit the admissions office or counseling/advising center for additional information and assistance."

Other Course Policies:

The college's official means of communication is via your campus email address. I will use your campus email address and Blackboard to communicate with you outside of class. Make sure you keep your campus email cleaned out and below the limit so you can receive important messages