

# **NORTHEAST TEXAS COMMUNITY COLLEGE**

**ELPT 1319 Dual Credit  
FUNDAMENTAL OF ELECTRICITY I**

**Spring 2019  
Tim Davis, Instructor**

## **I. Course Description:**

An introduction to basic direct current (DC) and alternating current (AC) theory including electron theory and direct current applications.

## **II. Course Objective**

The student should be able to calculate values of voltage, current, resistance, and power in series, parallel, and combination circuits; connect practical circuits in the laboratory; use test instruments to measure electrical values; calculate wire size and resistance of different size conductors; demonstrate knowledge of batteries and magnetism; and demonstrate knowledge of AC / DC generators and motors.

## **II. Textbook**

Basic Electrical Theory 3<sup>rd</sup> Edition

Mike Holt

## **III. Tools**

No Tools Required

## **IV. Performance Objectives**

Demonstrate knowledge of the basic sub-atomic parts of an atom, give a definition of the law of charges, centrifugal force, and valence electrons.

Demonstrate knowledge of basic electrical values such as voltage, current, resistance, and power.

Demonstrate the ability to calculate electrical values for series, parallel, and combination circuits.

Demonstrate knowledge of how to determine different electrical values for series, parallel, and combination circuits.

Demonstrate the ability to calculate values of resistance, length, type of material, and size for conductors. Be able to determine different values of resistors.

Demonstrate knowledge of batteries.

Demonstrate knowledge of magnetism and basic magnetic measurements.

Demonstrate knowledge of electrical measuring instruments

Demonstrate knowledge of series, shunt, and compound direct current generators.

Demonstrate knowledge of series, shunt, and compound motors.

## **V. GRADING**

All tests must have a 70% accuracy to be considered passing. The Dual Credit student will use our Instructor Online Testing Tool for each unit. Homework grades will all be counted with the average of test grades. Attendance will also be factored in for grading, by following the NTCC handbook.

## **VI. Academic Dishonesty**

The college and your instructor expect 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 pursuits. Academic dishonesty such as cheating, plagiarism, and collusion is unacceptable and may result in disciplinary action.

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.

## **VII. Attendance Policy**

Regular and punctual attendance at all scheduled classes is expected. Attendance is necessary for successful completion of course work. If you are absent, you are responsible for initiating procedures for make-up work. All course work missed, regardless of cause, is to be completed to the satisfaction of the instructor.

*More than three absences are considered excessive!* It is up to you to initiate a drop in the Office of Admissions and Records.

**VIII. 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 arrange an appointment with a College counselor to obtain a Request for Accommodations form. For more information, please refer to the NTCC Catalog or Student Handbook.

## **IX. 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.



I HAVE READ THE SYLLABUS FOR THIS COURSE AND UNDERSTAND WHAT IS REQUIRED TO PASS. I UNDERSTAND THE EVALUATION AND GRADING POLICIES IN THIS COURSE. I WILL FOLLOW ALL SAFETY AND CLASSROOM POLICIES BOTH WRITTEN AND VERBAL. ALL QUESTIONS I HAD WERE ANSWERED BY THE INSTRUCTOR TO MY SATISFACTION.  
COURSE NO. ELPT 1319

Student  
Signature \_\_\_\_\_

Date