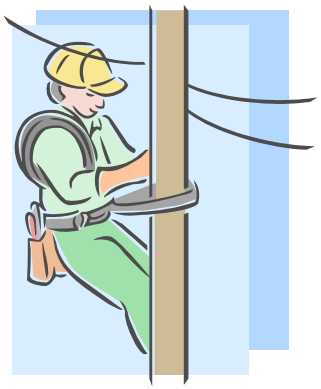
NORTHEAST TEXAS COMMUNITY COLLGE
Mount Pleasant High School



Course Syllabus for

ELECTRICAL CALCULATIONS

ELPT 1315

Spring 2018

Tim Davis, Instructor
903-434-8385
tdavis@ntcc.edu

This syllabus is intended as a set of guidelines for this course. Northeast Texas Community College and your instructors reserve the right to make modifications in content, schedule, and requirements as necessary to promote the best education possible within prevailing conditions affecting this course.

Course Description

Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry.

Learning Outcomes

Utilize a calculator to perform operations involving fractions and decimals; compute percentages utilizing ratio and proportions; convert unit values; solve simple equations; and calculate areas and volumes of geometric solids.

Textbook and Supplies

Textbook: Practical Problems in Mathematics for Electricians, 9e
Calculator (T1 36x or Equivalent, TI 83 or better if possible)

Conduct of Course

I. 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.

II. Academic Dishonesty

MPISD/NTCC 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. **MPISD/NTCC upholds the highest standards of academic integrity. This course will follow the MPISD/NTCC Academic Honesty policy stated in the Student Handbook.**

III. Evaluation and Grading

The grades you will receive for this class will be based upon these areas:
There will be 4 tests all equal 100% of your final grade.
Homework assignments will be all added together to equal one test grade, it will replace Your lowest test score out of the first three tests. If you have an A average at the end of the Semester and all the homework you will be exempt from Final.

IV. Dress

It is important to present a professional image in the work place. Students will refer to MPHS student handbook.

V. Tools

Students will be required to furnish the basic tools needed for this course. The Instructor will give the students a list of these tools.

VI. General Classroom and Lab Policies

The Electrical Technology program, has policies that must be followed. These policies will be give the student, a better opportunity to learn the electrical occupation trade. *The general classroom and lab policies are in the Electrical Technology Shop Safety Manual that is in progress.* The instructor may have additional policies for their class.

1. Students are not permitted to use instructor's tools at any time.
2. Students are not permitted to use shop phone at any time.
3. Students are not permitted to enter any instructor's offices unless accompanied by an Electrical faculty member. **NO EXCEPTIONS!**
4. The Internet will be used only with the approval of the Electrical Faculty.
5. Any printing must have the instructor's approval.
6. If class is interrupted due to personal communication devices you will receive a 0 for the day.
7. Any personal emergencies will be handled through the main office and security.

VII. General Safety Policies

Anyone with extremely long hair must have some way to keep it up (hair net, hat). There will be no open-toe shoes worn in the shop (sandals, flip flops). Each student will be given a pair of safety glasses to be worn at all times while in shop. *The general safety policies are in the Electrical Technology Shop Safety Manual.* The instructor may have additional safety policies for their class.

Instructor Comments

Electrical Math will be emphasized in this course.

Course Objectives

Objectives for this course are listed in the handout that covers Competencies/tasks. Most of the problems are word problems designed to encourage the students to use logical deduction to arrive at an answer. Many of these word problems are multi-stepped. Problems related to the electrical fields are used throughout the text to help students understand electrical terms and practices.

Course Outline

1. Whole Numbers
2. Common Fractions
3. Decimal Fractions
4. Percent, Averages, and Estimations
5. Powers and Roots
6. Measure
7. Ratio and Proportion
8. Formulas
9. Trigonometry

Dual Enrollment Classes

Students are enrolled in a high school class, which may be taught by a college instructor or by a high school instructor employed by the college. The class can be located on the high school campus or at NTCC and must meet and exceed the Texas Essential Knowledge and Skills (TEKS) of the State Board of Education (SBOE). The college also grants credit for having completed the course. College classes meet Monday, Wednesday, (MW) or Tuesday, Thursday (TTH). Students and/or parents assume full financial responsibility for the cost of dual enrollment classes. This includes tuition, fees, books, materials, travel, and any other related costs. Dual enrollment classes are open to sophomores, juniors, and seniors. Approved dual credit courses are: Government (American National Government), Economics (Principles of Macroeconomics), English III (English Composition I & II), English IV (British Literature), Algebra II (College Algebra), Pre-Calculus (College Trigonometry & College Pre-Calculus), Chemistry II (Chemistry), Automotive, Electrical Technology, and Dual Credit EMT. No other course work completed at the college will be recorded on the high school transcript or given grade points for ranking purposes.

ADA Statement

It is the policy of MPISD/Northeast Texas Community College 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. For more information, please refer to the MPISD/NTCC Student Handbook.

ASSURANCE OF NONDISCRIMINATION

The Mt. Pleasant Independent School District does not discriminate on the basis of race, religion, color, national origin, sex, or handicap in providing education services. Dr. Lynn DeHart, Superintendent, has been designated to coordinate compliance with the discrimination requirements of the Title IX and the nondiscrimination requirements of Section 504 of the Rehabilitation Act of 1973, as amended.

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 1315

Student Signature

Date