

Course Syllabus

Subject: Electrical Technology

Instructor: Mr. Persichetti

E-mail: mpersichetti@wtps.org

Course Description

This course employs a three- pronged approach to learning:

Lecture, demonstration, and experimentation to ensure thorough understanding of the principles being explained in each topic area covered. Experiments with detailed instruction help the learning process of those principles in the fields of electricity and electronics. These applications bring the concepts into focus for the students enrolled. Many of the topics relate the electricity and electronics to state-of-the-art technology. Practical applications of the developed principals and skills by constructing inexpensive, professional-appearing projects. These projects have proven appeal and demonstrate the concrete knowledge that is being developed throughout the units of study. Students who successfully complete the electricity and electronics technology course should have a thorough understanding of the concepts of electricity and electronics. This knowledge gained will be able to be applied to other more advanced studies in this field. This course brightens the outlook for students entering the electronics industry in the future and translates into opportunities for specialized education and a lifetime of challenging and rewarding employment.

Course Outline

- 1. Course Introduction, Safety and Overview**
- 2. Science of Electricity and Electronics**
- 3. Basic Instruments and Electrical Measurements**
- 4. Introduction to Basic Electrical Circuit Materials**
- 5. Energy & Sources of Electricity**
- 6. DC Series Circuit analysis through Ohm's law and Kirchoff's law**
- 7. DC Parallel Circuit analysis through Ohm's law and Kirchoff's law**
- 8. Complex DC Complex Circuit analysis through Ohm's law and Kirchoff's law.**
- 9. Analog VOM bread boarding and printed circuit board construction**
- 10. Career Opportunities in Electricity & Electronics.**

Grading Policy

The grade for each student will be based on the following criteria:

Classroom Performance / Participation*

Homework/Classwork

Quizzes

Projects/Tests

*Your work in class is just as important as the project itself; therefore you will be given a Daily classroom performance grade.

The classroom performance grade will consist of the following criteria:

Willingness to participate, ability to follow classroom rules and procedures, following safety procedures, proper use of equipment, being prepared for class, and following clean-up procedures.