

Electrical Occupations Program Syllabus 2018-2019 Mr. Mitchell

Program Overview

This program is designed to provide students with the necessary skills and technical competencies for entry level jobs in the electrical industry. Throughout the course general and electrical safety are stressed. This course is a comprehensive overview of workplace safety, hardware and materials, tools, test and measurement instruments, and building plans used in residential wiring. Due to this being a competency based course, students are expected to attend regular lectures while completing competencies at their individual pace.

Course Goals

The course will give students the prerequisite skills required for entry into the electrical industry as indicated by a proficient score on the exit evaluation (NOCTI). The students will gain technical, academic, foundation and functional skills. Academic goals will include but not limited to basic arithmetic, AC & DC electrical theory, computer and reading literacy skills and measurement. Technical goals will include but not limited to job safety, material and tool identification, knowledge and ability to complete required course projects and resumes.

21st Century Skills will include but not limited to professionalism, problem solving, teamwork, customer relations, manners, and clear and concise communications.

Textbook

- *Basic Principles for Construction* by Mark Huth
- *House Wiring* by Greg Fletcher
- *Electrical Principles* by Stephen L. Herman
- *Green Applications for Residential Construction* by Mike Guertin

Required Material

Each student is expected to bring a tape measure and knife for stripping wire.

Required Dress

Each student is expected to provide and wear leather work boots and purchase an electrical uniform shirt while in the shop area and follow all safety rules and procedures.

Course Objectives

- Students are to build skills which lead industry certifications
- Materials used in this course will be in compliance with Apprenticeship, Training
- Employer and Labor Services (ATELS) requirements for classroom training
- This course is aligned to National Skill Standard
- This course is aligned with the goals of the local Occupational Advisory Committee

Course Topics

- Safety
- Basic Principles for Construction
- House Wiring
- Electrical Principles
- Basic Motors
- Basic Power Distribution
- National Electrical Code

Course Outline

The course outline is a separate document which explains the assignments for each nine-week term. The course outline will include major assignments and their due dates as well as other important information for successful completion of the term.

Grading Policy

Students will be given daily points for wearing proper attire, demonstrating shop safety, attendance, and effort while working on shop projects. Students will also be graded on exams, tests, quizzes, and reading assignments. All seniors are required to take the NOCTI exam, which is both written and performance based, as part of their final grade during their senior year.

Evaluation of Student Performance

- Daily Grade 60%
- Tasks 20%
- Tests 20%
- (Seniors) NOCTI Test and portfolio-20% of final grade*
*for eligible seniors only
- (Juniors and Sophomores) Career Readiness Grade level requirements-20% of final grade

All make-up work is the student's responsibility!

Project Grade

Ten total points may be earned. Four points represent time on task. Two points represent behavior. Two points represent cleaning of the student work area. Two points represent general shop clean up. Any number of points may be deducted from the daily grade for misbehavior or unsafe work practices.

Portfolio

Each student is to maintain a portfolio. The portfolio shall contain important documents such as a resume, career plan, and other documents. Every grading period will include a grade to indicate progress on the portfolio as well as the senior project.

Written Assignments

Written assignments may be hand written on an 8 ½ x 11 inch paper as long as it is legible.

Lab Assignments

A final project will be assigned in the lab.

Quizzes

All quizzes are taken on-line. If a student does not pass or get the required grade, they may retake the quiz. However, the quizzes must be complete before the end of the grading period. Quizzes may be taken at home or in school. The URL for taking quizzes is <http://quizstart.4teachers.org/>.

Tests

At the instructor’s discretion, a midterm and a final for the grading period may be required.

NOCTI Assessment

All eligible seniors completing the program are required by the state of Pennsylvania to take a National Occupational Competency Testing Institute (NOCTI) exam related to their program or study. NOCTI provides occupational competency assessments required by the PA Department of Education (PDE) to measure and evaluate a student’s competency in their technical program. Students must take both the written and performance sections. **This test will be used as a cumulative final exam grade of 10% for seniors.**

The final grade will be distributed according to the sending school’s grading scale:

Final Grade	CHS	JMHS	MHS	WCHS	WGHS
A	100-93	100-92	100-90	100-90	100-90
B	92-85	91-82	89-80	89-80	89-80
C	84-75	81-70	79-70	79-70	79-70
D	74-65	69-60	69-60	69-60	69-60
F	64 and below	59 and below	59 and below	59 and below	59 and below

Classroom Discipline:

Students must adhere to the GCCTC Student Handbook Policies and Conduct Expectations. If students violate ANY of the policies the following interventions will be used:

- **First Offense** - Warning (offenses of a serious nature will be handled in cooperation with administration immediately)
- **Second Offense** - Phone Call or Email home and/or a referral to guidance counselor
- **Third and Subsequent Offenses** - Referral to Administration

By signing below you acknowledge having read and understand the Electrical Occupations Program Syllabus. Parents/ guardians and students will be notified if any changes need to be made to the course policies. If you have additional questions and/or comments you may call the school at (724) 627-3106 to speak with the teacher or email Mr. Mitchell at mitchellb@greenectc.org.

Guardian/ Parent Signature:

Date:

Student Signature:

Date:
