

Middle Bucks Institute of Technology

Course - Electrical Technology

Instructor: Randy McDowell

Date(s): Week 8-17

Lesson Title: Blueprint Reading Level 100

Lesson Number: 400

Unit: Level 1 - Semester 1 - Blueprint Reading

Objectives/Description:

After lecture discussion and demonstration, students will be able to identify, and populate various electrical blueprints according to NEC, and industry standards.

Tasks/Learning Activities: (student focused)

PA400 - Blueprint Reading

PA401 - Identify types of blueprint plans.

PA402 - Identify blueprint symbols.

PA403 - Interpret blueprint plans.

PA405 - Develop electrical details on a blueprint.

PA406 - Use a measuring tool to scale.

Standards / Assessment Anchors

LITERACY READING

CC.1.2.11-12.A Determine and analyze the relationship between two or more central ideas of a text, including the development and interaction of the central ideas; provide an objective summary of the text.

CC.1.2.11-12.E Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.

CC.1.2.11-12.F Evaluate how words and phrases shape meaning and tone in texts.

CC.2.1.HS.F.3 Apply quantitative reasoning to choose and interpret units and scales in formulas, graphs and data displays.

CC.2.2.HS.D.8 Apply inverse operations to solve equations or formulas for a given variable.

CAREER EDUCATION & WORK

13.1.11.A Relate careers to individual interests, abilities, and aptitudes.

13.1.11.C Analyze how the changing roles of individuals in the workplace relate to new opportunities within career choices.

Instructional Activities: (teacher focused)

- *Pre-Learning
- Essential Question Posting
- K-W-L (M A X)
- Picture walk
- Quick look
- Vocabulary by accident
- Cornell Notes (A X)
- Question aloud
- Reciprocal Teaching
- Triangle Truths (A X)
- Develop tomorrow's quiz
- Demonstrate what was learned
- Writing journals

Special Adaptations:

Per student accommodations

- Study Guide
- Use of Calculator
- Drill and Practice (Repetition of Material)
- Teacher Modeling
- Communication Regarding Behavior & Consequences (PBS)

Assessment:

- FORMATIVE/SUMMATIVE EVALUATION
- Traditional Tests - multiple choice, matching, true/false, short answer completion
- Traditional Quizzes - multiple choice, matching, true/false, short answer completion
- Module Exam
- Graded Writing assignments
- Textbook Computer Generated Tests
- OBSERVATIONAL EVALUATION
- Class Oral Responses
- Teacher evaluating student class participation
- WORK ETHIC

- Study guides provided prior to tests
- Use of calculator
- Extended time to complete the assessment

Safety:

All work shall be performed in a workmanlike and safe manner according to industry and OSHA standards.

Lesson Preparation:

Updates all presentation slides and documents to reflect current NEC codes.
Print out multiple Scaled Blueprints.
Insure scale rulers arent broken and there are enough for each student.

Resources/Equipment:

Electrical Wiring Residential, Cengage, Most recent edition
National Electrical Code, Most recent edition
Electrical supplies & equipment
Powerpoints
Teacher made handouts
Computer
Google Classroom

Additional Notes:

Supplemental materials will be poted in Google Classroom.