

Building & Construction Technology I: Fix-It

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Delsea One Hours: Wednesday and Friday

2019-2020

Elective 5 Credits

Periods A, C, X

Course Description: This class serves as a course for the highly technical learner who enjoys creating something with their hands and desires to enter the construction trades. Assessments include, but are not limited to: quizzes, tests, MPA's, lab activities, skill mastery demonstrations, logbooks, and project estimation research. An emphasis will be placed on professionalism and demonstrating a positive work ethic on a job site. Participation in TSA will reinforce cluster knowledge and skills. The course addresses the NJSL Standard 9.3 for Architecture & Construction

Prerequisites: None

Objectives: Upon completion of this course, students will be able to:

- Identify and follow safe work practices and procedures on how to properly inspect and use safety equipment.
- Describe the safety practices associated with elevated work, energy release, and various hazards encountered on job sites.
- Use basic math skills needed in the construction environment and will be introduced to whole numbers and fractions; working with decimals; the four primary math operations; reading rulers and tape measures; the Imperial and metric units of measurement; basic geometric figures; and area and volume calculations for two-dimensional and three-dimensional objects.
- Identify, use, and know the proper care of hand tools. Students will also be able to identify and use various power tools used in the construction industry, describe the basic concepts of material handling and common safety precautions and identify various types of material handling equipment and describe how they are used.
- Develop the information and skills needed to read and understand construction drawings.
- Develop proper communication skills needed to communicate clearly and effectively.
- Understand guidance related to finding and securing a position in the construction trades. In addition, guidance in the areas of problem-solving and effective interaction with others is offered to help ensure their success in the construction trades.

Projects: Small home repair including the basics of home electrical work and how to maintain and repair problems in and around a home; how to change engine oil; wooden frames for pictures; step stools, tables

Resources: NCCER, Youtube, Google Classroom, How-to manuals, Relationships with local contractors

Career Ready Practices

CRP1 - Act as a responsible and contributing citizen and employee **CRP2** - Apply appropriate academic and technical skills **CRP4** - Communicate clearly and effectively and with reason **CRP6** - Demonstrate creativity and innovation **CRP8** - Utilize critical thinking to make sense of problems and persevere in solving them. **CRP9** - Model integrity, ethical leadership, and effective management. **CRP10** - Plan education and career paths aligned to personal goals. **CRP11** - Use technology to enhance productivity. **CRP12** - Work productively in teams while using cultural global competence.

PATHWAY: CONSTRUCTION (AC-CST)

9.3.12.AC-CST.1 Describe contractual relationships between all parties involved in the building process.

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9.3.12.AC-CST.2 Describe the approval procedures required for the successful completion of a construction project.

9.3.12.AC-CST.3 Implement testing and inspection procedures to ensure the successful completion of a construction project.

9.3.12.AC-CST.4 Apply scheduling practices to ensure the successful completion of a construction project.

9.3.12.AC-CST.5 Apply practices and procedures required to maintain job site safety.

9.3.12.AC-CST.6 Manage relationships with internal and external parties to successfully complete construction projects.

9.3.12.AC-CST.7 Compare and contrast the building systems and components required for a construction project.

9.3.12.AC-CST.8 Demonstrate the construction crafts required for each phase of a construction project.

9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment, and resources to accomplish construction project goals.

PATHWAY: MAINTENANCE/OPERATIONS (AC-MO)

9.3.12.AC-MO.1 Recognize and employ universal construction signs and symbols to function safely in the workplace.

9.3.12.AC-MO.2 Use troubleshooting procedures when solving a maintenance problem in buildings.

9.3.12.AC-MO.3 Apply construction skills when repairing, restoring, or renovating existing buildings.

9.3.12.AC-MO.4 Determine work required to repair or renovate an existing building.

9.3.12.AC-MO.5 Plan and practice preventative maintenance activities to service existing buildings.

9.3.12.AC-MO.6 Maintain and inspect building systems to achieve safe and efficient operation of buildings.

GRADING

- Safety First (including cell phones) 20%
- Participation (individual and group) 20%
- Projects 30%
- Testing/Certifications 30%

CLASSROOM NEEDS

- Chromebooks
- Pencils and Pens
- 1- Three Subject Spiral Notebook
- 3 Pairs of Rubber Coated Work Gloves (available at Home Depot, Lowes)