TAACCCT Modules

Student Guide
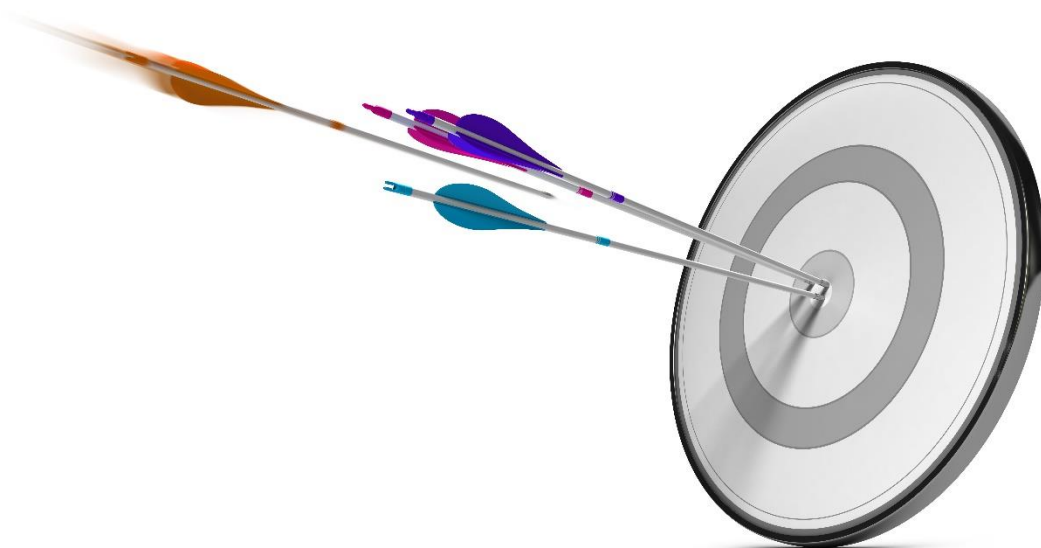
Thaddeus Stevens College of Technology

August 2016

TAACCCT Modules
Thaddeus Stevens College of Technology

Introduction & Background

These modules were designed as part of the Thaddeus Stevens College of Technology TAACCCT Grant.

CURRICULUM DEVELOPMENT

Timothy Strunk, HVAC/R Instructor in cooperation with WIDS Instructional Design developed the TAACCCT modules. Pam McCarty, Project Manager, TAACCCT Grant at Thaddeus Stevens managed the project plan and deliverables.   The modules are designed to be used in an online environment but can be adapted for classroom use. Each learning plan can be posted in a learning management system. Hyperlinks can be used to access the class materials.

INDUSTRY REVIEW

Industry partners were invited to review the modules and provide feedback. Feedback confirmed the usefulness and accuracy of the module contents. Industry feedback results are available upon request.

For more information, contact:

Pam McCarty, M.Ed.

Project Manager, TAACCCT Grant

Thaddeus Stevens College of Technology

750 E. King Street

 Lancaster, PA   17602

Phone: 717-391-6934   Cell: 717 327-5028

pmccarty@stevenscollege.edu

HOW TO USE THIS GUIDE:

This Student Learning Guide includes two learning plans designed to guide you through your learning journey:

- Learning Plan 1: Career Exploration
- Learning Plan 2: Hazard Control

A learning plan includes the following components:

Overview

The Learning Plan Overview describes what you will learn and why it is important.

Competency

Each learning plan targets a competency which reflects a skill identified by industry as important to your success on the job. A competency is a major skill or ability that you will be able to perform as a result of completing the learning plan.

Performance Standards

Under each competency, you will find information describing how you will demonstrate the competency, such as by writing a report or giving a presentation. You will also find the criteria that will be used to evaluate your performance. Be sure to review this information at the start of each learning plan to help guide you as you strive for success.

Learning Objectives

Learning objectives are the supporting knowledge and skills needed to perform the competency and can serve as benchmarks towards your mastery of the competency.

Learning Activities

The learning activities describe the activities you will perform/complete to master the learning objectives, and ultimately the competency. Your instructor may modify or add additional learning activities to meet the needs of your class.

Assessment Activities

The assessment activities describe the activities you will complete to demonstrate mastery of the competency, according to the performance standards defined for the competency.

Learning Materials

In each learning plan, you will find information sheets and activity sheets designed to support your learning. Your instructor may provide alternative or additional materials as needed.

Performance Assessment Task

At the end of each learning plan you will find a Performance Assessment Task. A Performance Assessment Task includes directions on how to complete the assessment and a scoring guide. Be sure to review the directions and the criteria detailed in the scoring guide prior to beginning the assessment activity. You may also wish to use the scoring guide to self-assess your work prior to submitting it to your instructor.

Career Exploration

Thaddeus Stevens TAACCCT Module

Learning Plan

Overview

Choosing the right career is one of the biggest decisions that we make in our life. In making this decision is important to use as many tools as possible to help direct us on the path that will be rewarding and successful. This module will help you determine a career choice that best fits your personality, skills and talents, interests, and employment opportunities in your area or region.

Target Competency

Investigate career options

Assessment Strategies

- Career Exploration Plan

Criteria

- career plan focuses on three different careers

- career plan includes tasks for each career

- career plan includes knowledge required for each career

- career plan includes abilities needed for each career

- career plan includes education required for each career

- career plan includes wages and employment information

- career plan includes the total number of search results from Indeed.com

- career plan includes a pros and cons table for each career

- career plan includes a written reflection on the best career choice

- career plan includes feedback from another person

- career plan includes next steps

Learning Objectives

a. Define your career interests
b. Relate interests to career options
c. Identify possible career choices
d. Describe the skills and requirements for various careers
e. Explore employment trends

Learning Activities

1. COMPLETE a career assessment by visiting https://www.cacareerzone.org/quick.   Follow the directions on the screen to identify potential career options. Choose three areas for exploration. View your results and select three careers for exploration during this module.

    Learning Materials

    California Career Zone Quick Assessment   https://www.cacareerzone.org/quick

    Career Exploration Plan   Career Exploration Plan.docx

2. COMPLETE Section 1 of the *Career Exploration Plan*.

    Learning Materials

    Career Exploration Plan   Career Exploration Plan.docx

3. VISIT http:// www.myfuturecareer.us and investigate the career choices found on the webpage by watching the videos and reviewing educational options for each of the careers. If desired, contact the college for additional information about those career choices or check out the website: http://stevenscollege.edu/career-services.

    Learning Materials

    My Future Career   https://www.myfuturecareer.us/

    Thaddeus Stevens Career Services   http://stevenscollege.edu/career-services

4. VISIT http://www.onetonline.org.   In the Occupational Quick Search box at the top of the page type in one of the three career choices from Section 1 of your *Career Exploration Plan* or a job of interest from the My Future Career website.

    PERFORM a search for information about that career choice. The search results will include different specific jobs that are relative to the career choice. Click on a particular type of job listed and review the specific information related to that specific job. RECORD your findings in Section 2 of the *Career Exploration Plan*. Repeat the research for two more career choices.

    Learning Materials

    O*Net Online   http://www.onetonline.org/

    Career Exploration Plan   Career Exploration Plan.docx

5. VISIT the Indeed job search website http://www.indeed.com and do a search for each of your three career choices. This search will produce results of job availability in your specific town or region. Write the total number of search results on the last line the table in Section 2 of the *Career Exploration Plan*.

    Learning Materials

    Indeed Job Search Site   http://www.indeed.com/

    Career Exploration Plan   Career Exploration Plan.docx

6. COMPLETE the Pros and Cons sections in the tables in Section 3 of the *Career Exploration Plan*. Be honest with yourself weighing out the good points and bad points for each of the three career choices you have been researching.

    Learning Materials

    Career Exploration Plan   Career Exploration Plan.docx

7. CHOOSE one of your three career choices and write a short paragraph about why that career choice is a good one for you in Section 4 of the *Career Exploration Plan*.

   Learning Materials
   Career Exploration Plan   Career Exploration Plan.docx

8. SHARE your *Career Exploration* Plan with a parent, friend, teacher or peer. Explain your choices and the information you discovered. Ask them to write their opinion of our career choice in Section 5.

   Learning Materials
   Career Exploration Plan   Career Exploration Plan.docx

## Assessment Activities

1. FINALIZE your *Career Exploration Plan*. COMPLETE Section 6 to identify next steps. Use the Career Exploration Plan performance assessment task scoring guide to assess your work.

   Learning Materials
   Career Exploration Plan   Career Exploration Plan.docx

2. SHARE your completed *Career Exploration Plan* with your instructor for feedback.
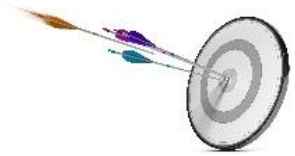
Career Exploration Plan

Activity Sheet

Section 1

Go to [Career Zone](#).

- Select three of the career categories for exploration: realistic, investigative, artistic, social, enterprising, or conventional.
- Click on the "view results" button (the button does not appear until you make your selections). A list of possible careers that best matches your choices appear.
- Select three careers for exploration.
- Record your information below.

Categories You Selected

1.

2.

3.

Three Careers You Will Explore

1.

2.

3.

Section 2

Record your three career choices across the top. Using the information from O*Net and your Indeed search, fill in the key information for each career choice.

Career Choices →	1.	2.	3.
Tasks			
Knowledge			

Career Choices →	1.	2.	3.
Abilities			
Education			
Wages and Employment Trends			
Total number of search results from Indeed			

Section 3

List the three career choices in the appropriate boxes below and brainstorm several pros and cons for each one.

Pros and Cons Table	
Career Choice Number One:	
Pros	Cons
Career Choice Number Two:	
Pros	Cons

Career Choice Number Three:	
Pros	Cons

Section 4

Think about what you have discovered during this exploration. Based on what you know, select the career choice you think is best for you and explain why.

Best career choice for me:
The reason I believe this is the best career choice is because:

Section 5

Share the work you have completed in this Career Exploration Plan with a parent, friend, peer or teacher. Ask him/her to write a short paragraph about your selection. Ask them to be honest in sharing their opinions about your choices.

Name of Person Reviewing:
The reason I believe _____ (is\is not) the best career choice for you is because:

Section 6

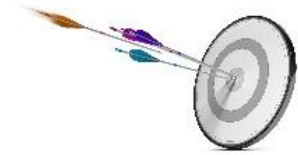Based on what you have learned through this career exploration activity, identify two or three next steps.

1.

2.

3.

Career Exploration Plan

Target Competency   **Investigate career options**

Directions

Complete the Career Exploration Plan by following the steps in the learning plan. Use this scoring guide to self-assess your work.

Rating Scale

Value	Description
COMPLETE	Item is completed in the Career Exploration Plan
NOT COMPLETE	Item is not complete or needs more work in the Career Exploration Plan

Scoring Standard

You must achieve a rating of COMPLETE on each criterion to demonstrate competence.

Scoring Guide

	Criteria	Ratings
1.	career plan focuses on three different careers	Complete Not Complete
2.	career plan includes tasks for each career	Complete Not Complete
3.	career plan includes knowledge required for each career	Complete Not Complete
4.	career plan includes abilities needed for each career	Complete Not Complete
5.	career plan includes education required for each career	Complete Not Complete
6.	career plan includes wages and employment information	Complete Not Complete
7.	career plan includes the total number of search results from Indeed.com	Complete Not Complete
8.	career plan includes a pros and cons table for each career	Complete Not Complete
9.	career plan includes a written reflection on the best career choice	Complete Not Complete
10.	career plan includes feedback from another person	Complete Not Complete
11.	career plan includes next steps	Complete Not Complete

Name _____ **Date** _____

Evaluator's Signature _____ **Date** _____

Comments:

Hazard Prevention and Control
Thaddeus Stevens TAACCCT Module

Learning Plan

Overview

The Occupational Safety and Health Administration (OSHA) reports that in 2014 almost 5000 workers were killed due to on-the-job injuries. That makes safety hazard prevention and control a real priority for employers. But safety isn't just your employers job--safety is everyone's responsibility.   In this module you will examine hazard prevention and control strategies used to reduce the risk of work-related injuries and fatalities.

Target Competency

Apply hazard prevention and control strategies to work related activities

Assessment Strategies

- Reflective Summary

Criteria

- reflection includes a description of a workplace hazard

- reflection includes one or more examples of how administrative controls can be applied to the hazard

- reflection includes one or more examples of how engineering controls can be applied to the hazard

- reflection includes one or more examples of personal protective equipment that can be applied to the hazard

- reflection includes how hazard prevention and control can be applied to almost any task in the workplace

Learning Objectives

a. Identify hazards that are associated with a work-related activity
b. Describe methods and controls used to prevent and control hazards
c. Identify engineering controls
d. List types of administrative controls
e. Relate the importance of personal protective equipment to safety
f. Explain common safe work practices

Learning Activities

1. THINK ABOUT IT: If you are going to control hazards--you have to be able to identify then. What is a hazard? OSHA defines a hazard as "unsafe work conditions or practices (dangers) that could cause injuries or illnesses (harm) to employees." LOOK AROUND your workplace. Identify one or more hazards using that definition.

2. VISIT the OSHA website at http://www.OSHA.gov and READ the information on "Hazard Prevention and Control." Review the information about engineering controls, administrative controls, personal protective equipment and safe work practices.

   Learning Materials

   Hazard Prevention and   https://www.osha.gov/SLTC/etools/safetyhealth/comp3.html
   Control

3. Based on the information found on the OSHA website, REVIEW the terms found in *Hazard Control* activity sheet and write a short description of the meaning of each of the terms in the second column of the table.

   Learning Materials

   Hazard Control Activity Sheet   Hazard Control Activity Sheet.docx

4. READ the *Repairing a Light Fixture* activity sheet. Identify how administrative controls, engineering controls, and personal protective equipment have been applied to help make the task safer for the worker who is doing the job.

   Learning Materials

   Repairing a Light Fixture   3-Repairing a Light Fixture Activity Sheet.docx
   Activity Sheet

5. COMPLETE the *Hazard Control Self-Check*. Given a scenario, determine the type of protective measure that has been used.

   Learning Materials

   Hazard Control Self-Check   4-Hazard Control Self-Check.docx

6. COMPLETE the Hazard Control performance assessment task.

Assessment Activities

_____1.   SUBMIT your Hazard Control assessment to your instructor for review and feedback.

Hazard Control

Activity Sheet

Using the OSHA website as a reference, write descriptions for each term in the left column.

Controls	Description
Personal protective equipment (PPE)	
Administrative control	
Engineering control	
Safe work practices	
Emergency preparation	
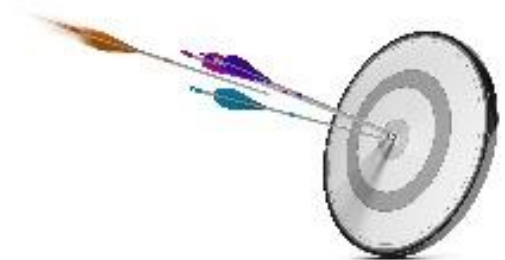
Repairing a Light Fixture

Activity Sheet

Read the task summary below on the procedure for repairing a light fixture and identify how administrative controls, engineering controls, and personal protective equipment have been applied help to make the task safer for the worker who was doing the job. Write your answers in in the table below.

Task Summary

A maintenance worker was asked by his supervisor to repair a non-working ceiling light fixture located in the main hallway of the administrative offices. Before starting the repair, the supervisor requested that the worker review the company safety procedures for electrical repairs. In the procedure instructions created by company administration, the safety manual recommends that employees working on electrical circuits be sure to take the following steps:

1. Workers should make sure that all circuits are de-energized by identifying their source and turning off the fuse or circuit breaker controlling that circuit and then utilize lockout/tag out procedures.
2. The safety procedure manual mandates that as a result of research conducted by the company's engineering department, workers making electrical repairs should use ladders that are constructed of non-conductive materials such as fiberglass.
3. Any worker making electrical repairs should have a second person working with them as a "spotter" to help injure no bystanders would be insured while repairs are being made.
4. Workers making electrical repairs should use PPE including but not limited to safety glasses, shoes with non-conductive soles, insulated gloves designed for the voltage being worked on, and required head protection if applicable.

Preventative Measure	Steps Taken for Hazard Prevention
Administrative Controls	
Engineering Controls	
Personal Protective Equipment	

Hazard Control Self-Check

Activity Sheet

Read the situation and then circle the type of protective measure that has been used.

Situation 1

When installing in new toner in a particular brand of copy machine the instructions say that prevention should be taken to avoid inhaling the toner dust. However, the copy machine manufacture has built a certain type of toner container to eliminate the possibility of the user to be exposed to the dust particles.

    a. Administrative control

    b. Engineered control

    c. Personal protective equipment

Situation 2

The US Postal Service requires all employees that operate mail delivery vehicles place a wheel chock at the rear wheel to prevent the vehicle from drifting down hill when un-occupied.

    a. Administrative control

    b. Engineered control

    c. Personal protective equipment

Situation 3

When a worker in a cabinet making shop chooses an electric hand sander, he notices that on the tool there is a label that states *"safety glasses must be worn when operating this machine."*

    a. Administrative control

    b. Engineered control

    c. Personal protective equipment

Situation 4

The owner of a package delivery company sends out a general notice to all employees that the company will no longer be making deliveries in inclement weather during the winter months.

    a. Administrative control

    b. Engineered control

    c. Personal protective equipment

Performance Assessment Task
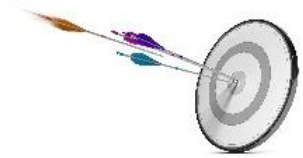
Hazard Control and Prevention

Target Competency   Apply hazard prevention and control strategies to work related activities

Directions

Examine your workplace. Identify a potential hazard. In a written reflection, describe the hazard. Try to be specific.

For the hazard, suggest one or more of the following controls that could be used to minimize or prevent the hazard.

1. Engineering controls
2. Administrative controls
3. Personal Protective Equipment

Finish your reflection with a one-paragraph summary of how hazard prevention and control can be applied to almost any task in the workplace.

Rating Scale

Value	Description
Met	Demonstrated the criterion
Not Met	Did not demonstrate the criterion fully or completed

Scoring Standard

You must achieve a rating of met on all criteria to demonstrate competence.

Scoring Guide

	Criteria	Ratings
1.	reflection includes a description of a workplace hazard	Met Not Met
2.	reflection includes one or more examples of how administrative controls can be applied to the hazard	Met Not Met
3.	reflection includes one or more examples of how engineering controls can be applied to the hazard	Met Not Met
4.	reflection includes one or more examples of personal protective equipment that can be applied to the hazard	Met Not Met
5.	reflection includes how hazard prevention and control can be applied to almost any task in the workplace	Met Not Met

Name _____ **Date** _____

Evaluator's Signature _____ **Date** _____

Comments: