**Student Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Description of Topic**

* When heavy objects need to be lifted, they should be done by forklifts, hoists, dollies, and other types of equipment. However, there are times that it is necessary to load or unloaded objects and materials by hand.
* One of the most common injuries that occurs in the workforce is to the back. It can range from a spasm or pulled muscle to a ruptured disk. An injury to the back can be minimized by using common sense by being in good physical shape to do lifting by using a back brace, and by using proper techniques. In this lab exercise, you will be required to demonstrate both proper and improper techniques of lifting a box off of ground level.

**Materials Required**

* Empty Box 2’x2’x3’ (high)
* Back Brace
* Cart with rollers (mechanical caddy)

**Objective**

* The student will demonstrate their knowledge on proper and improper techniques when lifting objects off a floor and moving heavy objects on a cart.

**Lab Assignment A**

* After attending a lecture on back safety or completing the reading assignment on their topic, you will be required to give a demonstration to your instructor that shows your knowledge about properly and improperly lifting techniques. Make sure you do the proper research on this topic and rehearse your presentation before making an appointment with your instructor. The presentation should include:
* Evaluating how heavy the object is.
* Determining the path on which you will carry the object
* Using an empty box, demonstrate the proper techniques of lifting and setting down the box
* Movements to avoid while the box is lifted
* How to move the box when it is on rollers.

**Grading Rubric**

Below is an example of a rubric to implement when evaluating the performance of individual students for each of the laboratory exercises.

|   | **Excellent****5 pts** | **Good****4 pts** | **Fair****3 pts** | **Poor****2 pts** | **Unacceptable****1 pts** | **Grade Received****(N/A)** |
| --- | --- | --- | --- | --- | --- | --- |
| **Ability to Follow Directions**  | ExcellentFollowed directions to the letter.  | GoodFollowed directions.  | FairModerately followed directions.  | PoorDid not follow directions.  | UnacceptableDid not appear concerned with directions.  | Grade Received |
| **Demonstrated Knowledge of Tools**  | ExcellentStudent knows and is able to identify and explain necessary tools for completion of the project.  | GoodStudent is able to identify and explain necessary tools for completion of the project with some assistance.  | FairStudent is unable to identify or use tools without major prompting.  | PoorStudent is not able to both identify and use tools.  | UnacceptableStudent's use of tools posed a danger to self and others.  | Grade Received |
| **Level of Needed Assistance**  | ExcellentStudent was able to complete the task without assistance.  | GoodStudent was able to complete the task with little assistance.  | FairStudent was able to complete the task with moderate assistance.  | PoorStudent was unable to complete task without major assistance.  | UnacceptableStudent was unable to complete task with assistance.  | Grade Received |
| **Student Preparedness**  | ExcellentStudent had/gathered all materials and was completely ready to go to work.  | GoodStudent had/gathered most materials and went to work.  | FairStudent had/gathered most materials, however, they needed excess time to do so.  | PoorStudent did not have/gather some of the needed materials to perform work.  | UnacceptableStudent did not have/gather the needed materials and was unable to perform work.  | Grade Received |
| **Time Management**  | ExcellentRoutinely used time well throughout the project to get the job done on time.  | GoodUsed time fairly well throughout the project.  | FairProcrastinated somewhat but did get the job done on time.  | PoorWas unable to adequately meet timeline due to inability.  | UnacceptableDid not meet timeline due to procrastination or wasting time.  | Grade Received |

**SAFETY DISCLAIMER:**

M-SAMC educational resources are in no way meant to be a substitute for occupational safety and health standards. No guarantee is made to resource thoroughness, statutory or regulatory compliance, and related media may depict situations that are not in compliance with OSHA and other safety requirements. It is the responsibility of educators/employers and their students/employees, or anybody using our resources, to comply fully with all pertinent OSHA, and any other, rules and regulations in any jurisdiction in which they learn/work. M-SAMC will not be liable for any damages or other claims and demands arising out of the use of these educational resources. By using these resources, the user releases the Multi-State Advanced Manufacturing Consortium and participating educational institutions and their respective Boards, individual trustees, employees, contractors, and sub-contractors from any liability for injuries resulting from the use of the educational resources.

**DOL DISCLAIMER:**

This product was funded by a grant awarded by the U.S. Department of Labor’s Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.

**RELEVANCY REMINDER:**

M-SAMC resources reflect a shared understanding of grant partners at the time of development. In keeping with our industry and college partner requirements, our products are continuously improved. Updated versions of our work can be found here: <http://www.msamc.org/resources.html>.