Ladders

1. **PURPOSE**

The purpose of this work instruction is to establish university wide guidelines for injuries while using ladders.

1. **APPLICATION**
   1. This work instruction will apply at all locations where personnel are employed.
   2. The requirements of this work instruction are to be observed by all personnel involved in working with ladders.
   3. This work instruction shall be reviewed and included in any activity that required when using ladders.
2. **DEFINITIONS**
   1. Fixed ladders are permanently attached to

buildings, equipment, or structures and cannot be

readily moved or carried.

* 1. Mobile ladder stands are movable, non-height

adjustable, self-supporting ladders, which look like stairs mounted on wheels.

1. **RESPONSIBILITIES**
   1. Worker:

* Trained and familiar with ladder being used.
* Able to understand and evaluate the risks associated with working at heights.
* Able to report unsafe conditions and/or behaviors to the Person-In-Charge.
* Inspect ladder prior to use.
  1. Supervisor:
* Ensure worker is trained.
* Ladder is operable.
* Help workers to understand when fall protection is required.

1. **PROCEDURE**
   1. Ladders.
2. Fixed ladders are permanently attached to

buildings, equipment, or structures and cannot be

readily moved or carried.

1. Mobile ladder stands are movable, non-height

adjustable, self-supporting ladders, which look

like stairs mounted on wheels.

1. Self-supporting ladders; You should be able to reach about four feet above the top of self-supporting ladders when you are positioned on the highest standing level. For example, a person of average height should be able to safely reach a 12-foot target work zone while using an eight-foot stepladder.

* Top cap: The upper-most horizontal member of a portable stepladder or step stool.
* Top step: The first step below the top cap. On ladders without a top cap, the top step is the first step below the top of the rails.

1. Ladder use.

* Do not use ladders when you are physically compromised (dizzy, faint, tired, or impaired due to medications, illness, drugs, alcohol, age, or physical handicap that may affect your general balance).
* Read and follow the manufacturer’s labels and instructions for the ladder.

1. Do not use a ladder during hazardous weather conditions such as high winds, electrical storms, and snow and ice storms.

* Always inspect the ladder before setting it up for use.
* Verify your “working load” and compare it to the ladder’s duty rating. Never exceed the ladder’s duty rating.
* Wear shoes that have nonslip soles; make sure they are free of mud, oil, or anything else slippery.
* Use only approved ladder surfaces such as steps, rungs, or cleats to support your body weight.
* Never stand on cross braces, spreader bars, or rear horizontals.
* Climb and descend facing the ladder.
* Never skip a step, rung, or cleat when climbing or descending.
* Climb and descend a ladder slowly and deliberately while focusing on each step, rung, or cleat.
* Descend completely down a ladder before dismounting. Do not jump down.
* Never attempt to hop, walk, or shift a ladder while on it.
* Never attempt to extend or shorten a ladder while on it.
* Center your body between the rails and keep your hips square to the rungs.
* Never overreach.
* Hold the side rails with both hands; you have a better chance of avoiding a fall if a rung or step fails.
* Hold the ladder with one hand and work with the other hand whenever possible. • Attach light, compact tools or materials to the ladder or to yourself. Do not carry them in your hands while ascending or descending.
* Raise and lower heavy, awkward loads with a hand line or a hoist.
* Use extreme caution when you are pushing or pulling materials while supported by a ladder.
* Never straddle the top of a ladder.
* Never use an extension ladder with the upper fly section positioned beneath the lower base section.
* When an articulated ladder can be separated into “inner” and “outer” scaffold trestle bases, never use the separated trestle bases as stepladders unless approved by the manufacturer.
* When an articulated ladder can be set up in a “work-table” configuration with a platform, never stand on the platform. When in the work-table configuration, the work-table is not a scaffold unless approved by the manufacturer.

1. Extension ladder setup.

* The ladder should be closed. Position the ladder with the base section on top of the fly section. Block the bottom of the ladder against the base of the structure.
* Make sure there is clearance and no electrical lines are overhead. Carefully “walk” the ladder up until it is vertical. Keep your knees bent slightly and your back straight.
* Firmly grip the ladder, keep it vertical, and carefully move back from the structure about one quarter the distance of the ladder’s working length. This allows you to place it at the correct angle against the structure.
* Raise the fly section. After the bottom rung of the fly section clears the bottom rung of the base section, place one foot on the base rung for secure footing.
* Lean the ladder against the structure. The distance from the base of the ladder to the structure should be one quarter the distance of the ladder’s working length. Make sure the ladder extends three feet above the top support points for access to a roof or other work level. Both rails should rest firmly and securely against the structure. Tie off the base and the top of the ladder if movement is possible.

1. Inspection of ladders. Before use by a competent person. Damage will result in the ladder being labeled “Do Not Use” and removed from service.

* Missing or damaged slip-resistant feet, shoes, or load-bearing surfaces.
* Cracks, holes, dents, gouges, splits, abrasion, or bends in the side rails.
* Cracks, holes, dents, gouges, splits, abrasion, or bends in the steps/rungs/cleats.
* Damage to the “step/rung/cleat-to-rail” connection.
* Loose bolts, joints, or rivets.
* Contamination from oil, grease, and mud.

1. Ladder storage. Store in a well-ventilated area protected from physical damage.

- Keep all ladders away from corrosive materials.

- Keep all ladders away from heat sources such as stoves, steam pipes, welding areas, and radiators.

- Store wood and fiberglass ladders away from excessive moisture, humidity, and sunlight.

- Store non-self-supporting ladders in flat racks or on a sufficient number of wall brackets that will prevent them from sagging.

- Store self-supporting ladders in a closed position, orientated vertically to reduce the risk of sagging or twisting.

- Ladders stored in a vertical orientation should be secured to prevent tipping over. Use suitable means such as rope, chain, ladder racks, or hanging brackets.

- Do not place materials on ladders while they are stored.