1. **INTENT**
This intent of the Ladder Safety Program is to ensure the safety of employees working with ladders. This program complements the University’s Fall Protection Program by setting the minimum requirements that all employees must follow when working with ladders.

This policy has been developed in accordance with Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.23.

2. **SCOPE**
This program applies to all employees of the University at Albany who may be expected to use a ladder during the course of work.

3. **RESPONSIBILITIES**

3.1 **Office of Environmental Health & Safety (EH&S)**
- Develop and coordinate implementation of the Ladder Safety Program
- Provide training for the care and use of ladders
- Maintain training records
- Conduct periodic inspections to ensure the continued effectiveness of the program

3.2 **Department Supervisor**
- Ensure the ladder safety program is being followed by all employees
- Coordinate training with EH&S
- Ensure that all affected employees using ladders have been trained
- Enforce the care, use, and storage of ladders as outlined in the program

3.3 **Employees**
- Properly select, use, and store ladders in accordance with the procedures in this document
- Thoroughly inspect and maintain ladders before and after use
4. VARIETIES OF PORTABLE LADDERS

4.1 Ladder Material
Ladders are generally available in three material compositions: wood, fiberglass, and metal.

- **Wood**: Wood ladders are electrically non-conductive. However, they can be electrically conductive if wet. Wood ladders are heavier than metal. They are susceptible to drying and rotting and need a clear finish to protect them.

- **Fiberglass**: Fiberglass ladders are strong, lightweight, and electrically non-conductive. They do not dry out and split like wood. They are slow to conduct heat, so they are able to withstand heat exposure without losing strength. Fiberglass may chip or crack under severe impact. When overloaded, fiberglass does not bend; it cracks and fails.

- **Metal**: Metal ladders (aluminum) are very strong and lightweight. They dent, but do not chip or crack when subjected to severe impact. They do not require a protective varnish for protection. They do conduct heat rapidly. If they are exposed to heat, they will lose their tensile strength. They must not be used when working on or near electrical wires or when working around energy sources. Metal ladders must be labeled with a DANGER warning sticker indicating electrocution hazard.

4.2 Ladder Type

- **Stepladder**: A self-supporting portable ladder, non-adjustable in length, having flat steps and a hinged back.

- **Single ladder**: A non-self-supporting portable ladder, nonadjustable in length, consisting of one section.

- **Extension ladder**: A non-self-supporting portable ladder adjustable in length, consisting of multiple sections.

- **Articulated ladder**: A portable ladder with one or more pairs of locking hinges which allow the ladder to be set up in several configurations such as a single or extension ladder, a stepladder, a trestle ladder, or scaffold. The locking positions of the hinges allow setup at the proper angles to accommodate each configuration that the manufacturer has designated.
4.3 **Ladder Duty Rating**
The American National Standards Institute (ANSI) requires that a duty rating sticker be placed on the side of the ladder. When selecting a ladder, be sure to use the proper duty rating to carry the combined weight of the user and materials. The ladder duty ratings are as follows:

<table>
<thead>
<tr>
<th>DUTY TYPE</th>
<th>DUTY RATING</th>
<th>MAXIMUM LOAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAA</td>
<td>Special Heavy Duty</td>
<td>375 lbs</td>
</tr>
<tr>
<td>IA</td>
<td>Extra Heavy Duty</td>
<td>300 lbs</td>
</tr>
<tr>
<td>I</td>
<td>Heavy Duty</td>
<td>250 lbs</td>
</tr>
<tr>
<td>II</td>
<td>Medium Duty</td>
<td>225 lbs</td>
</tr>
<tr>
<td>III</td>
<td>Light Duty</td>
<td>200 lbs</td>
</tr>
</tbody>
</table>

5. **LADDER CARE, MAINTENANCE, AND INSPECTION**
Ladders shall always be maintained in good condition by ensuring the following:

- The joint between the steps and siderails shall be tight.
- All hardware and fittings shall be securely attached.
- Movable parts shall operate freely without binding or excessive play.
- Locks, wheels, pulleys, and other bearings shall be frequently lubricated.
- Frayed or badly worn rope shall be replaced.
- Safety feet and other auxiliary equipment shall be kept in good condition.
- Rungs shall be kept free of grease and oil.
- Wood ladders shall not be painted with an opaque finish or coated with any material that may hide defects. Use only clear varnish.

The user shall inspect the ladder before and after use. Ladders with defects shall be taken out of service immediately and tagged as “Dangerous Do Not Use.”

A sample inspection checklist can be found in **Appendix A** of this document.
6. **LADDER STORAGE**  
When not in use, ladders shall be stored in a designated location out of direct sunlight and not exposed to harmful elements that may cause decay/damage. Never store materials on a ladder. Be sure that ladders are secured when in transit. Vibration and bumping against other objects may cause damage.

7. **LADDER SETUP**  
Prior to climbing, a ladder shall be set up as follows:

- The ladder base must be placed on secure footing. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.

- Ladders shall not be used in a horizontal position as a platform, a runway, or scaffold.

- Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked upon, locked, or guarded.

- The area around the ladders must remain clear from debris, equipment, etc.

- Never place a ladder near exposed electrical wiring or against operational piping (chemical, gas, sprinkler systems) where damage may occur.

- Extension ladders shall be extended from the floor/ground only.

- Position straight/extension ladders so that the siderails extend at least 3 feet above the upper landing.

- Straight/extension ladders shall be used so that the base is a distance from the vertical wall equal to one-fourth the working length of the ladder.

- The minimum overlap for the two-sections on extension ladders shall be as follows:

<table>
<thead>
<tr>
<th>Extension Ladder Size</th>
<th>Minimum overlap of ladder sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to and including 36 feet</td>
<td>3 feet</td>
</tr>
<tr>
<td>Over 36 feet up to and including 48 feet</td>
<td>4 feet</td>
</tr>
<tr>
<td>Over 48 feet up to and including 60 feet</td>
<td>5 feet</td>
</tr>
</tbody>
</table>
8. **CLIMBING AND STANDING**
When climbing or standing on a ladder, the following safety precautions shall be followed:

- Make sure shoes are free of mud, soil, or anything slippery.

- When ascending or descending, the user must face the ladder and maintain at least three points of contact with the ladder (two feet and one hand, or two hands and one foot).

- The top two steps of a stepladder shall not be used for standing. The highest working height shall be clearly marked. Do not stand on the pail shelf of a stepladder. Do not straddle the front and back of a step ladder.

- Never stand on the top two rungs of a straight or extension ladder.

- The centerline of the body must be maintained between the siderails of the ladder. Do not lean or reach to either side.

- No more than one person shall be on a ladder at a time unless the ladder is manufactured to support an additional person.

- Do not move, shift, or extend ladders while in use.

9. **TRAINING**
All employees shall be trained prior to portable ladder use, to recognize hazards and procedures to minimize hazards. Employees shall be trained in the following:

- The recognition of possible hazards associated with ladder use

- Ladder inspection and maintenance

- The proper use and placement of ladders

- The maximum intended load capacities of ladders used.

Employees shall be retrained as necessary to maintain their understanding and knowledge on the safe use of ladders.
APPENDIX A

Sample Ladder Inspection Form
(Provided by Werner Co.)
Ladder Inspection Form

Company Name: 

Ladder Reference Number: ___________________ Dept. ___________________

Inspector ___________________ Date. ___________________

### Stepladder

- **Size**: ______ ft.
- **Material**: 
  - [ ] Aluminum
  - [ ] Wood
- **Steps**: Loose, Cracked, Bent or Missing
- **Rails**: Cracked, Bent, Split or Frayed
- **Rail Shields**: 
- **Labels**: Missing or Not Readable
- **Pail Shelf**: Loose, Bent, Missing or Broken
- **Top**: Cracked, Loose or Missing
- **Spreader**: Loose, Bent or Broken
- **General**: Rust, Corrosion or Loose
- **Other**: Bracing, Shoes, Rivets

**Actions**: 
- [ ] Ladder tagged as damaged & removed from use
- [ ] Ladder is in good condition

### Extension Ladder

- **Size**: ______ ft.
- **Material**: 
  - [ ] Fiberglass
  - [ ] Aluminum
- **Rungs**: Loose, Cracked, Bent or Missing
- **Rails**: Cracked, Bent, Split or Frayed
- **Labels**: Missing or Not Readable
- **Rung Locks**: Loose, Bent, Missing or Broken
- **Hardware**: Missing, Loose or Broken
- **Shoes**: Worn, Broken or Missing
- **Rope/Pulley**: Loose, Bent or Broken
- **Other**: Bracing Rivets
- **General**: Rust, Corrosion or Loose

**Actions**: 
- [ ] Ladder tagged as damaged & removed from use
- [ ] Ladder is in good condition
Ladder Inspection Form  Provided by Werner Co.

☐ Specialty Ladder
  ☐ Fiberglass  ☐ Aluminum  ☐ Wood

Model Number: ____________________

Mark all that apply

Steps/Rungs: Loose, Cracked Bent or Missing
Rails: Cracked, Bent, Split or Frayed
Labels: Missing or Not Readable
Hardware: Missing, Loose or Broken
Fasteners: Rust, Corrosion, Loose or Missing
Top: Cracked, Loose, or Missing
Spreader: Loose, Bent or Broken
Outriggers: Missing, Rust, Corrosion or Loose for scaffolding
General: Rust, Corrosion or Loose
Hinges: Loose, Bent or Missing
Locks: Loose, Bent, Broken or Missing
Bracing Front, Rear: Loose, Bent, Broken or Missing
Rivets: Rust, Corrosion, Loose, Missing
Shoes: Worn, Broken or Missing
Platform: Loose, Bent, Broken or Missing
Rail Shield: Missing or Loose
Shoulder Bolt: Rust, Corrosion or Loose
Casters: Rust, Corrosion or Loose for scaffolding

Actions: ☐ Ladder tagged as damaged & removed from use
☐ Ladder is in good condition