

UNION COLLEGE

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GYMNASTICS POLICY
& SAFETY MANUAL

UNION COLLEGE

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This safety manual has been compiled by Union College to ensure the safety of all participants in the Union College gymnastics program. All procedures must be carried out in conjunction with any requirements or guidelines provided by equipment manufacturers.

Located in Lincoln, Neb., Union College is an accredited institution of higher learning, owned and operated by the Seventh-day Adventist Church, with a mission to empower students for learning, service and leadership. To learn more about Union College gymnastics, visit www.ucollege.edu/athletics/gymnastics

SECTION 1: POLICIES

EQUIPMENT USAGE

Policy and Guidelines

Equipment Inspection Policy

The Gymnares will use a three-tier inspection process for all equipment:

1. Coaches should periodically perform simple inspections before equipment use.
2. Detailed equipment inspections should occur monthly and be documented in the logbooks for auditing purposes.
3. International rescue and relief program staff at Union College (IRR) will perform annual detailed inspections of equipment and rigging where there is crossover in IRR expertise (ropes, pulleys, rigging, carabiners, etc.).

Adventist Risk Management will audit inspection logs and documentation process, including replacement cycles, during their scheduled Campus Safety Audits every three years.

All Gymnares staff and athletes should receive training in the set-up, use, inspection, replacement and storage of equipment.

All manufacturers' guidelines, warnings and maintenance or replacement standards that have been released with specific equipment shall be followed consistently in addition to the general requirements of this policy.

Equipment Documentation: The Logbook

A logbook should be created and maintained for each piece of equipment and the appropriate inspection log completed for each use. One copy will be kept in the gymnasium and another kept in the coach's office.

The logbook should include:

- Date of purchase for equipment
- Date of inspections
- Date when routine maintenance was performed (including a description and the last time any portion of the equipment was replaced or repaired).
- The number of hours a piece of equipment has been used—both for practices and performances.
- Any manufacturer's information regarding equipment use, maintenance, repair and inspection.
- Use cycles—measured in the number of practices the equipment was used.

A logbook should be created that contains a section for each type of equipment, component or apparatus. (Example: All carabiners will go in one section, all trampolines in another section, etc.)

- Each individual piece of equipment will have its own divided section within the section where documentation relating specifically to that piece can be kept.
- The back of the logbook will have a section for retired equipment documentation. Retired equipment documents should be kept for 10 years after the equipment is retired and/or replaced.

Equipment Acquisition, Maintenance and Replacement Policy

An annual equipment acquisition, maintenance and replacement schedule will be implemented.

- The coaches shall perform an annual inventory where all logbooks are read and equipment coming due for replacement is noted.
- Equipment due for replacement in two calendar years should be highlighted in yellow in the logbook. A list of all the equipment coming due for replacement in two calendar years shall be sent to the Athletic Director so budgets can be adjusted and plans made for acquisition of new equipment.
- Equipment due for replacement in that same calendar year should be highlighted or marked in red in the logbook. A complete list of equipment due for replacement in that calendar year should again be sent to the Athletic Director and any other administrator in charge of approving budgets and purchase orders.

Logging new equipment

When a new piece of equipment arrives, the date should be noted in the logbook.

- New pieces of equipment will be inscribed with the date of purchase.
- Metal connectors shall be permanently marked with the year of purchase. Great care should be taken to mark equipment only in approved areas and in a way that does not affect the strength or use of the part. (See the Carabiner use section on page 23 for details.)

Removing old equipment

- Old pieces of equipment that have been replaced should be immediately removed from service and destroyed.
- Identification labels on discarded equipment should be crossed out to avoid confusion.
- Discarded equipment logbook sections should be moved to the back of the logbook to a divided section for retired equipment.
- Copies of all paperwork, purchase orders and other information used in the process of ordering equipment and received from the manufacturer during ordering and shipment shall be kept in the equipments' respective logbook section.
- Sections at the back of the logbook with information about retired equipment should be kept for 10 years.

PERSONNEL

Policy and Guidelines

This section lays out the prerequisites training required and the responsibilities for gymnastic coaches at Union College.

Athletic Director's Responsibilities

- Arrange orientation and training for staff and athletes in the set-up, use, and storage of equipment, as well as first aid, emergency response and any inspections required of them by this policy.
- Ensure that equipment maintenance and replacement as well as coaches' training and certification are included in the annual budget.
- Remove and destroy any unsafe equipment and organize the replacement or maintenance of any faulty equipment.
- Involve any other departments as necessary to fulfill this policy.
- Ensure a first aid kit is readily accessible.
- Maintain schedule of inspections and audit of the logs by Adventist Risk Management.
- Coordinate with the international rescue and relief program for collaborative inspections required by Union College policies.
- Ensure coaches follow the equipment inspection and replacement policies by quarterly reviewing the equipment inspection logbooks and annually meeting with coaches to review items due to be replaced.
- Ensure the team does not perform any activity for which there is no educated and certified coach to teach, supervise or monitor the activity.

Gymnastics head coach's responsibilities

- Order all equipment necessary for the program and maintain records for purchasing, ordering and inspecting all equipment in the logbook.
- Create a logbook with a section for each piece of equipment that documents the order, purchase, age, inspection and maintenance of the equipment.
- Ensure all policies, procedures and requirements related to the Gymnares program are followed, including maintenance of equipment logbooks.

All coaches' responsibilities

- Monitor the day-to-day use of gymnastics equipment.
- Perform inspections and reviews as directed by the Head Coach in accordance with this policy.
- Train athletes to properly use equipment.
- Ensure a safe and appropriate landing surface is provided at all times in accordance with the level of activity and the ability and experience of the athlete. They should frequently assess the environment to ensure that it remains safe.
- Teach athletes correct landing techniques and methods of falling safely.
- Always check the equipment and surrounding area before the athlete starts training or performing. Any defects found should be reported and recorded for prompt correction. Any equipment found unsafe must be immediately removed from service and athletes must be prohibited from using the damaged equipment.
- Ensure that inspections and corrections are recorded on the appropriate forms and kept in the corresponding logbook.
- Ensure that athletes do not use their own equipment. Athletes may only use equipment purchased and provided by Union College.
- Periodically re-check equipment during each activity, as well as train and direct athletes to check equipment before use.

Coach Education and Qualifications

- Coaches must complete certification in gymnastics instruction and developmental coaching instruction.
- Coaches are required to complete the Centers for Disease Control Heads-Up concussion education course and certification, or a substantial equivalent, on an annual basis. After the course the coach should be fully versed and comfortable with assessing and detecting an athlete with concussive symptoms.
- Before holding and supervising a gymnastics or circus-talent event, at least one on-site coach must have taken a hands-on course that teaches the mechanics of the skill, basic safety principles relating to the event and coaching risk management techniques that can be applied when coaching and supervising athletes in that event.

(Example: Aerial and circus training courses will be required for at least one coach if the team intends to use aerial silks or Lyra in performances.)

- Coaches must also have basic first aid and risk management certification, preferably those offered by USA Gymnastics. However, a substantially equivalent course is also acceptable.
- At least one coach must complete a training session provided by a rigging professional (training course must be approved by administration).
- The head coach is required, and other coaches are strongly recommended, to take the following courses:

1. U100 Fundamentals of Gymnastics Instruction course offered by USA Gymnastics.
(<https://usagym.org/pages/education/courses/U100/>)
2. The Aircat Aerial Fabric Training Course or an administration approved aerial training course.
(http://www.aircat.net/Aerial/Fabric_Teacher_Training.html)
3. Cheer Coach Credentials through the American Association of Cheerleading Coaches and Administrators.
(<http://aacca.org/content.aspx?item=News/online-cheer-safety-course.xml>)

ACCIDENT RESPONSE

Policy and Guidelines

In an Emergency

In the event of a hard fall or catastrophic injury, the coaches must follow these steps:

- Assess the situation for required action and identify obvious injuries, then follow all first aid training guidelines.
- Contact emergency responders by calling 911.
- Stop all surrounding activity to prevent further injury.
- Immediately take all necessary and possible steps to stabilize the injured athlete.
- Administer all necessary first aid treatment until responsibility is transferred to a more qualified caregiver (such as emergency personnel).
- Enlist the help of any and all other coaches and staff to aid the athlete, make phone calls and gather necessary medical supplies, while the head coach remains with the athlete.
- Notify Union College Security of the incident by calling 402-486-2911 (or x2911 on campus phone). Safety Officers will then secure the scene and make the contacts necessary to notify other members of the Union College Crisis Team.
- Immediately obtain the athlete's health records and medical history and give all relevant information contained in those forms and observed before, during and after the incident to arriving paramedics. This information about immediate post-accident condition can be critical in accurate physician diagnosis and treatment.
- Call any emergency contact numbers provided by the athlete to inform their contact of the incident.
- Document incidents using the appropriate incident documentation form.

In cases of severe injury or death, do not disturb the area of the incident.

For Minor Incidents

- Administer simple first aid for minor cuts, scrapes and falls. Anything appearing more complicated should be handled as a major incident until a trained individual can reclassify the situation as minor.
- All used first aid supplies should be replaced, refilled and returned to the designated storage area, and any used equipment should be recharged and made ready for the next immediate need or use.

General Concussion Procedures

- After any fall or collision (between athletes or athletes and obstacles) and especially those that seem particularly severe for the athlete's size, the athlete should be pulled from the activity and assessed for concussion symptoms.
- Some signs of concussions include: dilated pupils, dizziness, pain in the head or body, disorientation, confusion, loss or change of color in the face and numbness.
- Coaches should all be trained in concussion detection and treatment and instructed to be vigilant for any sign of concussive symptoms. The CDC's online Heads-Up concussion training or a similar program should be completed annually by all coaches.
- Coaches should ask an athlete about his or her condition and take initiative to look for symptoms even if the athlete does not complain after a fall or collision. Athletes should also be empowered to tell a coach about any symptoms they may be experiencing, but that are not outwardly apparent.
- If any sign of concussion is detected, the athlete should be immediately and permanently pulled from the activity until cleared by a medical professional. Under no circumstances should the athlete return to action that same day.

APPARATUS SAFETY

Policy and guidelines

This section explains basic safety procedures for using various gymnastics apparatus.

Trampoline Safety

The use of the trampoline must be supervised at all times (one supervisor is required per apparatus in use).

- While using equipment, assure that spotters are in place and that a spotting harness is used where appropriate.
- Spotters must be in place around trampolines for flatbed activities.
- The coaches shall carry out regular safety checks on the apparatus: check the beds for tears, the pads for adequate padding, assure that all parts are in good condition and that the springs are properly covered and secure with all hooks turned down.
- All potential hazard areas should be matted and padded.

(See Trampoline and Teeterboard Equipment section on page 36 for more detail.)

Fall Protection

- Every coach and athlete must have training in recognizing and mitigating fall hazards.
- Apparatus must be appropriately arranged to allow for safe landings (spaced to allow for falls).
- All matting should be abutted to the equipment so no hard, hazardous spaces remain uncovered.
- Spotting equipment must be used for athletes who are unfamiliar with an event or skill that requires aerial flight or positioning at the top of the pyramid. This is for use during practices until the athlete is able to successfully complete the skill without need for the spotting system.

Landing and Recovery Procedures

Athletes must be able to land safely to reduce the potential for injury. Time spent teaching skills related to recovery from falls will reduce risk of injury and increase confidence to learn new skills.

A safe landing is intended to:

- Dissipate force over as long a period as possible.
- Dissipate force over as much of the body as possible.

Athletes should be taught to land on their feet from a controlled jump or dismount, or how to recover from an abnormal fall.

- The body should be extended with arms raised to reduce rotation.
- When contact is made with the landing area, the momentum of the body is absorbed by controlled 'flexion,' or bending of ankles, knees and hips.
- Drop arms on landing.
- Heels should remain on the floor and when body is static and on balance, the athlete should be standing.

Using rolling to absorb the force of a fall

Learning to roll is one of the most important ways for gymnasts to avoid injury after a fall. Athletes should practice falling and rolling to absorb the force of a fall over a large distance and area. Falls generally occur forward and backward, while sideways falls occur less frequently. The force of falls can be dissipated by rolling (forward roll for a forward fall, backward roll for a backward fall, and sideways shoulder roll for a sideward fall). Athletes should learn to perform rolls so they avoid landing on outstretched arms. Falling on an outstretched arm often results in elbow dislocations and arm fractures.

Other factors may increase the risk of injury including:

- trying moves that are too complicated for one's skill level
- not using a spotting system
- getting overtired or spending long hours practicing

These behaviors should be avoided and closely monitored by the coach.

Use of mats

Sufficient and proper matting should be placed under and around all athletes' apparatuses and equipment, with special care to pad potential falling areas underneath aerial activities. (See Mat Equipment Use on page 15 for more details.)

Spotting Techniques

Generally, three types of spotting may increase the safety of gymnastics, circus aerial work and stunting—landing mats, human spotters and spotting harnesses.

Landing mats

Spotting/landing mats should be placed in the area where a coach and athlete anticipates they might fall or land—whether purposefully or by accident.

Human spotters

Human spotters can be strategically placed close to the athlete to catch any unsuspected falls or reposition the athlete if their form becomes dangerous.

Spotters should be trained with three goals:

- To keep the athlete from falling on the head or neck
- To prevent other injury
- To assist athletes through skills by manipulation of the athlete's body to avoid harsh landing

Spotting techniques will vary with the activity being spotted. Spotting requires strength, therefore spotters can fatigue over time. A rotation of spotters should be instated in cases of prolonged use.

Designated spotters should be familiar with the stunt or activity they are spotting and know the potential risks and dangers to watch for during the activity. They should anticipate needed intervention and be ready to act immediately to secure the athlete.

Spotting Systems

Spotting systems with harnesses and lines should also be used to aid athletes in their preparations and learning when appropriate. These systems should be engineered with a mechanism at the ceiling and should contain redundant systems to protect from falls.

Harnesses, lines, rope and metal parts and pieces that make up the spotting safety system should be inspected and maintained according to the procedures detailed in their respective *Equipment Use Manual*.



SECTION 2: EQUIPMENT USE

MATS

Mat Standards

- All matting should be equipped with non-skid material on the bottom to ensure it is kept in place during the activity.
- Standard tumbling or rebound trifold mats (which have slightly more padding) should be used underneath and around all teeterboards, apparatuses and as general protective matting around all athletes, pyramids, flips, trampoline stunts and any other activity where athletes might fall or have potentially dangerous contact with the floor.
- All mats for gymnastics activities should be a minimum of two inches thick and must meet industry standards.
- Soft mats shall be placed on top of the standard tumbling and rebound mats when practicing new stunts or with new athletes or when the activity has heightened risk of athletes falling from heights.
- All aerial activities should have at least tumbling mats covered by soft matting; and that a double layer of matting should cover all the potential landing areas below the apparatus and the performer.
- Mats under silks, Lyra, or any other individual skilled act done more than 10 feet off the ground, should be eight inches thick with a minimum coverage area of 12 feet x 12 feet.

Landing pads should be placed in the appropriate location behind the mini trampoline stunting area and at any other location where the athlete intends to or could reasonably be expected to aim during the stunt. If the athlete is jumping on top of or onto a mat, that mat should be a spotting/landing mat.

Mat Use Procedures:

- Mats should be placed on all designated landing areas under and around equipment without overlapping or gaps.
- Additional matting should be placed around and underneath the apparatus and equipment when necessary to protect an athlete learning a new skill.
- Precautions should be taken to minimize the movement of mats on impact, as well as to watch for mat slippage and uneven surfaces.
- Mats with Velcro must be secured to each other to avoid mats being separated, and to avoid the risk of an athlete falling directly on hard surfaces during practice or a performance.
- Landings must be planned at safe distances away from walls and other equipment.
- Mats should not be used in place of athlete readiness, proper skill progressions, competent instruction and proper spotting.
- Proper placement of mats is ultimately the responsibility of the coach.
- Mats should be inspected weekly by coaches for soft spots, tears, separating foam and/or fatigue. If a mat exhibits any of those characteristics it should be retired and kept out of use. Remove defective mats and adjust activity accordingly.

Mat Care and Inspection

An annual equipment acquisition, maintenance and replacement schedule should be implemented.

Mats should be inspected according to a three tier system:

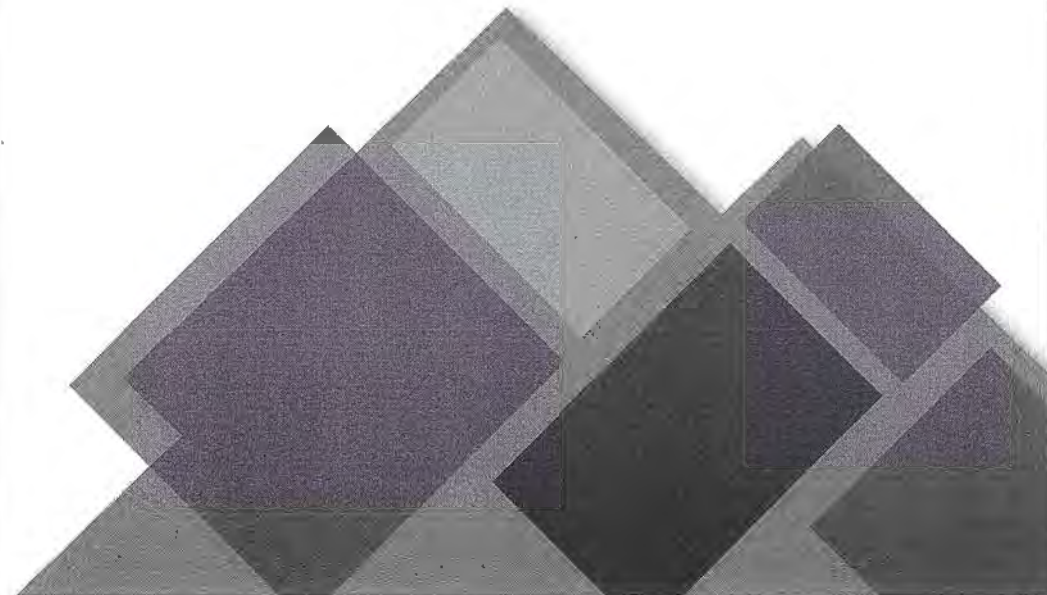
1. All mat surfaces should be visually inspected by the coaching staff before every use. Look for defects, weak points and any other sign of danger due to worn out or torn fabric.
2. All mats must have a deep cleaning and more rigorous inspection once per quarter, following the general directions below. Look for defects or dangerous conditions in the matting fabric and padding that present risk to athletes.
3. A more thorough inspection should occur annually and logged in the logbook. The help of an outside mat manufacturer or industry expert may be used.

Cleaning and inspection procedures

- All mats should be swept to dislodge any loose debris, dirt, grit or dust.
- During regular cleanings, all mats should be wiped with a clean rag and a pH neutral disinfectant solution.
- Quarterly deep cleaning should involve thoroughly cleaning every part of the mat with disinfectant.
- All mats should be inspected by a coach for tears, soft spots, separation of foam and fatigue.
- If any of this damage is found, the mat should be retired and a new mat purchased. The retired mat shall not be used by athletes, and must be removed from the gym.
- All Velcro on the edge of a mat, used to connect it and prevent slipping, can be cleaned with a stiff bristle brush to ensure it hooks properly with Velcro on other mats.
- Mats should be stored flat or in a roll to maintain the integrity of the foam inside.

Mat logging procedures

- Mats should be marked or labeled with the date they were put into service for identification and to keep track of age.
- All mats should have a section in the logbook where the inspection log sheets and all manufacturer information, recommendations and procedures are kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition will also be stored there. The mat inspection log sheet should be used for notes during all inspections.



Inspection Procedure

All rope should be inspected according to a three-tier system:

1. Rope should be regularly inspected by the coaching staff before every use; these routine inspections should consist of a quick but meaningful check of the body of the rope. Permanently installed rope may be inspected monthly. The inspector should look for defects, weak points and any other sign of danger due to overstressed or broken components.
2. Coaches will be required to inspect ropes in more depth every month, following the general directions below, and just as before, coaches should look for defects or dangerous conditions that present risk to athletes.
3. A complete inspection should occur annually with the help of a competent trained individual from the international rescue and relief program.

After a large and apparent drop fall or shock load, where large amounts of tension were applied very quickly to a rope, inspection should be done right away. If a problem is noted it should be immediately reported to a person of authority.

During inspection check for the following:

- damage to sheath
- visible damage to core
- soft spots or necking down
- chemical or petroleum contamination
- burns (glazed, glossy or melted spots)
- heavy surface fuzz
- stiffness
- inconsistent texture or diameter
- rust contact—discoloration
- pulled or cut strands
- extreme compression

If any of the above conditions are found upon inspection, consider the following in your decision to repair or retire the rope: the length of the rope, how long it has been in service, the type of work it does, where the damage is and the extent of the damage. In general damage localized to one area can be repaired; rope with damage over extended areas should be retired.

Rope Logging

- Once a new rope is purchased a logbook section shall be created and the first page should note all identification information for that particular rope and all subsequent entries will be inspection logs. (See inspection procedure below.)
- If the rope is left attached to rigging at all times, then it should be marked or labeled with identifying information that corresponds with that rope's master logbook.
- The logbook should be updated at inspection.
- Rope should be tag/tape-labeled with the date it was put into service and identification or serial number that can be matched with the logbook and inspection logs to keep track of the rope's age.
- Such labeling is generally done with rope marking labels that can be purchased where rescue equipment is sold.
- Notes regarding the number of use cycles the rope has experienced and information about the equipment's order, replacement and condition should be kept in the log book. The Rope Inspection log sheets should be used for notes during all inspections.
- The rope log attached to the pocket of each rope bag should also be updated with every inspection in addition to the updated master copy. This log should also have a picture of the rope.

Rope removal criteria

Rope should be retired and destroyed if:

- It exhibits obvious fault or damage.
- Is worn out from excessive use or age.
- More than half of its outer sheath yarns are broken.
- When the rope has been exposed to an observable shock load or was stressed by a load beyond what it was designed to support—even if it is the first use.
- When it is contaminated by chemicals.
- When the rope has had usage that cannot be accounted for.
- If the rope's maximum life span has been reached.
- While the industry standard allows for replacement of soft equipment every five years, the recommendation is that all rope be retired and replaced at least every three years.

Once designated for removal, the reason for removal should be logged and reported and the rope itself should be destroyed or cut into pieces to be used for small utility jobs.

Rope Inspection Log

Rope Number:	Length:	Date of Manufacture:
	Diameter:	
Manufacturer:	Model:	Date Purchased:
Type and Fiber:	Color:	Rope Use:

Use and Inspection History:

Inspect rope for damage or excessive wear before and after each use and according to school and manufacturer policies. Attach picture of rope.

Date	Discoloration y/n	Heavy surface fuzz y/n	Burns in sheath - glazing	Chemical contamination y/n	Damage to sheath - core y/n	Soft spots or necking y/n	Pulled or cut strands y/n	Extreme compression y/n	Comments regarding damage/ Unusual use	Return to Service? Fit for Use (F), Needs repair (R) or Retire (X)	Signature of Inspector

CARABINERS AND CONNECTORS

Standards for Hard Equipment and Carabiners

- General use carabiners should be manufacturer-labeled as having a major axis breaking strength of at least 40 kN (8992lbf). The Union College International Rescue and Relief program recommends using Petzl carabiners.
- Ropes and straps used in lanyards, lifelines and strength components must have a static or low stretch design, Kernmantle construction, be made from synthetic fibers and measure at least 10mm. They must all have a manufacturer-labeled minimum breaking strength of 22 kN (4945lbf). Natural fiber, manila or cotton ropes are not to be used.
- All metal hardware should be made from a corrosion resistant metal and tested for corrosion.
- Lanyards and vertical lines shall be manufacturer labeled with a minimum breaking strength of 5,000 pounds (22.2 kN).
- The industry standard and general recommendation is to require a minimum 5:1 safety factor for all ropes and rigging. Thus the maximum working load should be approximately 1/5, or 20 percent of the quoted spliced rope breaking strength. This factor helps to provide greater safety and extends the service life of the equipment.
- All manufacturers' instructions for maintenance should be followed in addition to these policies and the general gym equipment policies.
- While industry standards allow for retirement and replacement of hard equipment every 10 years, the recommendation is to retire and replace all hard equipment components every five years.

Carabiners

- Auto-lock carabiners are required.
- Snaplink and carabiner gates should be self-closing and locking design.

Other hardware

- Connectors shall be made of drop forged, pressed or formed steel, or equivalent material.
- Connectors should have corrosion resistant finish and all surfaces and edges should be smooth.
- Dee-rings and snap-hooks should have a minimum tensile strength of 5,000 pounds (22.2 kN), as labeled by the manufacturer.
- Dee-rings and snap-hooks should be tested to a minimum tensile load of 3,600 pounds (16 kN), as labeled by the manufacturer.
- Swivels hooks should have a minimum tensile strength of 5,000 pounds (22.2 kN), as labeled by the manufacturer
- Only locking type snap-hooks can be used.

Inspection

All metal mechanisms, parts and equipment including but not limited to carabiners, connectors, swivels and any other metal rigging parts should be inspected according to a three-tier system:

1. Components should be regularly inspected every time the apparatus, in which the connectors, carabiners and swivels are involved, is hung, used or assembled. If the apparatus is a permanent installation, the routine check should be performed monthly by the coaching staff. These routine inspections should consist of a quick but meaningful check of all components. The inspector shall look for defects, weak points and any other signs of danger due to overstressed or broken components.
2. Coaches will inspect metal components more rigorously once per month following the general directions below, and look for defects or dangerous conditions that present risk to athletes.
3. In addition, a more thorough inspection should be performed annually with the help of a competent member of the IRR.

Procedures

- Compare the device with a new device to verify there are no modifications or missing elements.
- Remove the connector from any device that conceals any part of the frame.
- Check the frame for nicks, dents, cracks, deformation or corrosion.
- Check for wear caused by rope movement or contact with anchors. Wear more than 1 mm deep is serious. Connectors with worn, sharp edges can completely sever perfectly new rope.
- Pull back any moving hinges and gates and inspect the nose of a carabiner for wear or defects.
- Check the gate and rivet for deformation or wear and manually ensure the gate opens completely and smoothly and that it closes automatically and aligns properly.
- Check the locking sleeve to ensure it works properly and does not show wear or deformation and that it does not turn while in the stopped position due to stripped threads.
- Swivels should be operated to make sure they turn smoothly and easily and that they do not have a loose appearance.
- Clean the part gently with soap and water and lubricate gently if necessary and according to manufacturer's instruction. Some manufacturers recommend using penetrating oil, others use silicone lubricants and still others use graphite.

Permanently marking hardware

- It has become a common practice to permanently mark the year of purchase or other identifying information directly on the body of hardware. The danger in such marking is its potential to modify the functionality of the hardware and invalidate potential warranties.
- A hand-held electric engraver is the only acceptable method of engraving. Do not strike the piece with a hammer, use stamps or other methods. Depth of engraving should be kept to a minimum.
- Once the mark has been made, always check the hardware for proper functionality before returning it to use.
- Rope bearing areas, gates, and rivet attachment areas should not be marked. The spine of the frame furthest from any moving parts is the only acceptable area for marking.
- Be aware that most hardware is coated to prevent rusting. Engraving will displace that coating and may make the part more susceptible to rust; it therefore must be cleaned and inspected more often.

Carabiner, Swivel and Metal Connector Log

- Carabiners and all other metal components should be marked with or labeled with the date they were put into service for identification and to keep track of age. See guidance below regarding marking and engraving procedures.
- All metal components should have a section of the logbook where the inspection log sheets and all manufacturing information, recommendations and procedures are kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition should also be stored there. One section will be maintained for each category of metal component or connector and will contain divided sections for each individual piece or part. The carabiner and metal connector inspection log should be used for notes during all inspections.
- Just like with rope, in addition to consistent inspections, metal pieces that have been part of a rig that sustained a drop fall or shock load should be inspected right away for damage.
- List the name of the inspector, which should be limited to the athletic director, head coach, assistant coach, member of the IRR or an approved outside organization that specializes in inspecting such equipment.
- Use the appropriate form to list the connector model number, serial number, year of manufacture, date of purchase, and date of first use.
- Note date of last use, usage conditions and any exceptional events during use.
- For each of the following factors designate if the connector is fit for use, needs secondary inspection, needs repair, or should be retired.
- Preliminary observations including looking for serial number, comparing to another device and checking lifetime.
 - Check the frame.
 - Check the gate and rivet.
 - Check the manual or automatic locking sleeve.
- Note any general defects found during the inspection.
- Decide if the connector is fit for service, or further inspection and repair are necessary or if the part should be immediately retired.
- Note the date of inspection and when the next inspection is required.
- If defects are found and retirement is necessary, decommission the part from service immediately and remove from areas with other equipment that is still in use, to avoid confusion.
- Conspicuously mark the connector as retired, broken or out of use to avoid confusion.

Carabiner and Metal Connector Inspection Log

Part Serial Number:	Size:	Date of Manufacture:
	Diameter:	Use Cycles:
Manufacturer:	Model:	Date Purchased:
Type of Part:	Color:	Part Use:

Use & Inspection History

Inspect part for damage or excessive wear before and after each use and according to school and manufacturer policies. Attach picture of part.

Known product history/ last use, any exceptional events:

After the following inspections circle the appropriate identifier-fit for use (F), needs repair (R) or retired (X).

1. Preliminary observations

Verify the presence and legibility of the serial number and the CE mark.
Verify that the product lifetime has not been exceeded.
Compare with a new device to verify there are no modifications or missing elements.

(F) (R) (X)

2. Checking the frame

To properly inspect your connector, it must be removed from any device that conceals any part of the frame:

- lanyard, energy absorbing lanyard with STRING, TRAC pulley, etc.
- Check the condition of the frame (nicks, wear, cracks, deformation, corrosion, etc.).
- Check for wear caused by rope movement, or by contact with anchors (depth of nicks: wear greater than one mm deep is serious, sharp edges starting to form, etc.)
- Check the swivel turning mechanism for smooth turning and looseness.

(F) (R) (X)

3. Inspecting the gate (depending on connector model)

- Check the condition of the gate (nicks, wear, deformation, corrosion, cracks, etc.).
- Verify the Keylock hole is clear.
- Check the condition of the rivet (cracking, deformation, corrosion, etc.).
- Manually verify that the gate opens completely.
- Verify that the gate closes automatically, that the return spring works, and that the gate and nose align properly.

(F) (R) (X)

4. Checking the manual locking sleeve (depending on connector model)

- Check the condition of the locking sleeve (nicks, deformation, corrosion, cracks, etc.).
- Verify that the locking sleeve can completely lock and unlock the connector.
- If necessary, clean with soap and water and lubricate lightly (ex. graphite powder).
- Verify that the locking sleeve does not turn when in its normal stop position (i.e. stripped threads).

(F) (R) (X)

5. Checking the automatic locking sleeve (depending on connector model)

- Check the condition of the locking sleeve (nicks, deformation, corrosion, cracks...).
- Verify that the unlocking system works properly, according to the opening method described in your connector's instructions for use.
- Check that the connector locks automatically when you release the gate and the sleeve. If necessary, clean with soap and water and lubricate lightly (ex. graphite powder).

(F) (R) (X)

Aerial Fabric (Silks) Inspection

Silks should be inspected according to a three-tier system:

1. Silks should be regularly inspected by the coaching staff before every use; these routine inspections should consist of a quick but meaningful check of all fabric and hanging mechanisms which will be checked more thoroughly on a monthly and annual basis. Fixed installations may instead be checked weekly. The inspector shall look for defects, weak points and any other sign of danger due to overstressed or frayed fabric.
2. Secondly, coaches will be required to inspect the silks in more depth every month, following the general directions below, and just as before, should look for defects or dangerous conditions that present risk to athletes.
3. In addition, a more thorough inspection should occur annually and may include the help of an outside silks manufacturer/installer. The coaching staff should also deep clean the silks at this time if needed.

Marking and logging

- Silks should be marked with or labeled with the date they were put into service for identification and to keep track of age.
- All silks should have a section of the logbook where the inspection log sheets and all manufacturing information can be kept. Notes regarding the number of use cycles the equipment has been through and information about order, replacement and condition will also be stored therein. The Aerial Fabric (Silks) Inspection log should be used for notes during all inspections.

Monthly overview inspections

- Remove apparatus from the rig.
- Remove fabric from the fabric hanger.
- Check the body of the fabric according to the manufacturer's instructions.
- Look for tears in the fabric or signs of excessive wear.
- Fabric with tears or excessive wear should be replaced immediately.
- Smell the fabric. If the odor is strong, perform a full inspection.
- Check the rigging components for signs of excess wear. If any components show signs of wear they should be replaced.

Annual full inspections

- Remove apparatus from the rigging.
- Remove fabric from the fabric hanger.
- Check the body of the fabric according to the manufacturer's instructions. Check fabric for tears or excessive wear. If fabric has tears or excessive wear it should be immediately replaced.
- Clean fabric according to the manufacturer's instructions.
- Check rigging components for signs of excess wear. If the rig shows excess wear, replace it.
- Recheck the body of the fabric according to the manufacturer's instructions. If excessive wear or tears are found, replace the fabric.
- Remember that using a slip-knot, or using the fabric as a sling is harder on the material, and the inspection schedule should be adjusted accordingly.

Aerial Hoops (Lyra) Use

The proper sized Lyra should be selected for the individual athlete based on his/her flexibility and height, generally:

- 34" Lyra is generally best for a performer under 5'6"
- 35" Lyra is generally best for a performer under 5'8"
- 36" Lyra is generally best for a performer under 6'

(Consult the manufacturer to get the best recommendation for the proper Lyra for the athlete.)

- Be aware that Lyra come with different numbers of "tabs" and should be selected based on the desired spinning or swinging characteristics.
- Lyra also come in solid or hollow compositions, and will spin differently based on this characteristic. Some manufactures offer a Lyra with a crossbar—if a crossbar is ordered the hoop should not be used without it or modified for another use.
- Lyra should not be modified or changed in structure once purchased from the manufacturer.

Lyra logging

- Lyra should be labeled with the date they were put in service and serial numbers or other distinct identification numbers for proper tracking in the appropriate section of the logbook.
- Logbooks sections should be kept for Lyra with inspection logs and manufacturer's information.
- An overview inspection should be made by the coach every time the apparatus is put up, or for fixed installations on a weekly basis; full inspection shall be done at least once annually.
- While the industry standard allows for replacement of all hard equipment every 10 years, the recommendation is that all Lyra be retired and replaced at least every five years.
- Lyra should be hung by a coach using a mechanical scissor lift with safety railings.

Lyra inspection

Lyra should be inspected according to a three-tier system:

1. Lyra should be regularly inspected by the coaching staff every time they are hung. Inspections may be done on a weekly basis for permanently installed pieces. These routine inspections should consist of a quick but meaningful check of all the hard and soft components that will be checked more thoroughly on an annual basis. The inspector shall look for defects, weak points and any other sign of danger due to overstressed or broken components.
2. Secondly, coaches will be required to inspect the Lyra in more depth every two months, following the general directions below, and just as before, coaches should look for defects or dangerous conditions that present a risk to athletes.
3. In addition, a more thorough inspection should occur annually and may include the help of an outside Lyra manufacturer or installer.

Other inspection notes

- Lyra should be marked or labeled with the date they were put into service for identification and to keep track of age.
- Lyra should have a logbook where the inspection log sheets and all manufacturing information can be kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition will also be stored there. One logbook will be maintained for all Lyra and will contain divided sections for each individual Lyra. The aerial hoop (lyra) inspection log should be used for notes during all inspections.

Overview inspection

- Remove apparatus from the rigging.
- Check the body of apparatus according to the manufacturer's instructions, for any signs of rust.
- If rust is found on the body of the apparatus, rub the area with steel wool to remove the rust.
- If you find rust over a large portion of the unit, or going into an area covered by padding/fabric, perform a full inspection on the unit.
- Check the welds according to the manufacturer's instructions.
- Look for any surface flaws or imperfections in the weld.
- Using hand pressure, try to pull and twist the weld.
- If the weld comes loose or looks less than secure the Lyra fails the inspection.
- If the welded joint fails this inspection, immediately take the unit out of service and consult the manufacturer.
- Inspect any attached ropes or cables according to the manufacturer's instructions and Union College policies.
- If the ropes or cables show any imperfections or signs of excess wear, perform a full inspection on the unit.
- Check the rigging components for signs of excess wear.
- If any rigging component shows signs of excess wear, replace the component.

Full inspection

- Remove apparatus from the rigging.
- Disassemble the unit according to the manufacturer's instructions.
- Remove rigging components (shackles, etc.) and ropes or wires from the unit.
- Remove any grip aids (tape, etc.) from the unit.
- Remove any fabric coverings and padding from the unit per the manufacturer's instructions.

Cleaning

- Clean the unit according to the manufacturer's instructions. Most metal items can be cleaned using denatured alcohol and rags.
- Make sure to get all grip aid residue off.
- Check the body of apparatus for any signs of rust, according to the manufacturer's instructions.
- If there is rust on the apparatus, rub the area with steel wool to remove the rust.

TRAMPOLINE AND TEETERBOARD

Trampoline Use:

- A trampoline should only be used under direct supervision of a coach.
- Opening or closing a trampoline can be dangerous. It must be done very slowly and carefully, preferably by more than one person with experience and knowledge of the procedures.
- Before use, any trampoline should be checked for defects, proper set up, and for overhead obstacles or other hazards.
- Trampolines should never be used by a person who is dizzy, fatigued, or under the influence of any medication, which can inhibit coordination or perception.
- Trampolines are to be used for serious practice and sport, never for horse-play.
- Proper stretching and warm up can help prevent strains and sprains. It is important that anyone who will use a trampoline warm-up properly, both on and off the apparatus.
- Athletes must not attempt somersaulting skills until the proper progressions have been completed under the supervision of a coach.
- Emphasis shall be placed on control in the use of the trampoline. Athletes should be taught to maintain control while performing skills.
- Jumping high is a learned skill and must be done carefully.
- Beginner athletes can learn many skills with little or no actual bounce on the trampoline.
- When a mini trampoline is used for practice, it must have a minimum 6'x12'x12" safety-landing pad.
- Only two foot landing should be done on the mini trampoline; no knee, seat, front or back drops to the bed or landing area.
- Proper attire should be worn when using a trampoline. Avoid clothing that impedes movement, such as street clothes, jeans, etc.
- Jewelry, including watches, earrings, and rings should not be worn on the trampoline.
- Only one person should jump on a trampoline at a time.
- For safety reasons, only straight mounting jumps are allowed.
- Industry standard allows for replacement of all soft equipment every five years. Industry standard allows for replacement of all hard equipment every 10 years.

Trampoline logging

- Trampolines should be marked or labeled with the date they were put into service for identification and to keep track of age.
- All trampolines should have a section of the logbook where the inspection log sheets and all manufacturing information can be kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition should also be stored there. The General Gym Equipment Inspection log should be used for notes during all inspections.

Trampoline inspection

Trampolines should be inspected according to a three-tier system:

1. Trampolines should be regularly inspected by the coaching staff before every use; these routine inspections should consist of a quick but meaningful check of all the hard and soft components that will be checked more thoroughly on a monthly and biannual basis. The inspector is looking for defects, weak points and any other sign of danger due to overstressed or broken components.
2. Secondly, coaches will be required to inspect the trampoline more in-depth monthly, following the general directions below, and just as before, coaches should look for defects or dangerous conditions that present a risk to athletes.
3. In addition, a more thorough inspection should occur annually. The help of an outside trampoline manufacturer or installer may be used if needed.

Other inspection notes

- Each mini trampoline should be completely set up before being thoroughly checked so all components and pieces can be seen and inspected. Trampolines should be stored according to the manufacturer's instructions, after the inspection, to protect from unauthorized use, or unnecessary wear and dirt.
- Inspectors should look for missing, improperly positioned or insecurely attached frame padding, punctures, frays, tears or holes in the mini trampoline mat or frame padding, deterioration in the stitching or fabric of the mat or frame padding, ruptured or loose springs, a bent or broken frame, sagging trampoline mat and sharp protrusions on the frame or suspension system. Any of these conditions could pose a safety risk and should be addressed and repaired immediately. During repair, the trampoline should not be used by athletes, staff or coaches.
- Trampoline beds should be checked for loose springs, tears or fraying of the webbing and tension should be even over the entire spring bed.
- Springs and cables should all be in place and not stretched out or pointing upwards.

- Leg braces should be tightly screwed into the frame.
- Frame pads should have no tears, loose parts or clips and should be fully padded.

Teeterboard Procedures

- The teeterboard and fulcrum should be chosen with care. Characteristics like flexibility of the board and height of the fulcrum can dramatically change the nature of flips, jumps and other movement on the board.
- Ensure that 20 cm mats with a compact foam top layer should be placed on either side of the teeterboard under the two ends of the main plank. These mats are firmer to prevent ankle rolls at landing. The mats should extend two meters past the end of both sides of the plank to catch an athlete if he misjudges a jump.
- The plank itself should be covered in thin matting to keep athletes from injury when they are hit or if they fall on the board.
- In addition, coaches should have a "throw mat" (aka-spotter mat/crash mat) available to toss underneath the athlete during training or if the stunt turns dangerous. That mat can be 30-40 cm thick and should be made of soft material.
- The type of landing mat will depend on the desired landing technique.
- If the athlete plans to land in a standing position the mat should be thinner with a firm foam top layer to protect his/her ankles.
- If the athlete plans to lay or sit during landing or is not well trained enough to control his or her landing, the softer spotter/crash mat landing mat should be chosen.
- Safety spotter lines with a spotting belt are critical for athlete protection when the stunts and tricks are aerial. They should be installed clear of the board and hung over the athlete's desired landing location.
- Spotters are also recommended. Two should be located on each side of the board.
- The plank and fulcrum should be set up with nothing around except mats and possibly the mini trampoline for combined skill stunts. All airspace above the teeterboard should be clear.
- It is important to gradually work athletes into stunts with safety preparations like spotters, spotting belts and adequate matting. If an athlete is a novice, in addition to the two big mats extending two meters out, smaller, thinner tumbling mats should be placed around the other two sides of the teeterboard in case of errors in landing or control.
- While the industry standard allows for replacement of all hard equipment every 10 years, the recommendation is that all hard equipment be retired and replaced at least every five years.

Teeterboard logging

- Teeterboards should be marked or labeled with the date they were put into service for identification and to keep track of age.
- All teeterboards should have a logbook where the inspection log sheets and all manufacturer information, recommendations and procedures are kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition should also be stored there. One logbook will be maintained for all teeterboards and will contain divided sections for each individual teeterboard. The trampoline and teeterboard inspection log should be used for notes during every inspection.

Teeterboard inspection

Teeterboards should be inspected according to a three tier system:

1. The fulcrum and board or plank should be regularly inspected by the coaching staff before every use; these routine inspections should consist of a quick but meaningful check of all surfaces which will be checked more thoroughly on a monthly and biannual basis. The inspector shall look for defects, weak points and any other sign of danger due to overstressed or broken components.
2. Secondly, coaches will be required to inspect the teeterboards more rigorously once per month, following the general directions below, and just as before, coaches should look for defects or dangerous conditions that present a risk to athletes.
3. In addition, a more thorough inspection should occur annually and may include the help of an outside teeterboard manufacturer or installer.

Other inspection notes

- Teeterboards with their component fulcrum and plank should only be purchased from a manufacturer or built under the supervision and instruction of a certified engineer.
- The fulcrum should be inspected for loose parts, piece joints or nuts/bolts/screws and the metal should show no sign of warping or disfigurement.
- The plank/board should be made of knotless wood and should be smooth with rounded edges where possible.
- Inspectors should look for any potentially hazardous conditions of the board where an athlete might fall, cut or hit himself or herself during a stunt.
- All parts should be securely attached and the fulcrum should be secured to the exact middle of the plank.
- Replaced or retired teeterboards should be destroyed.

Other inspection notes

- Bend the webbing (fabric straps portion) into a U-shape looking for damaged fibers or cuts, frayed edges, pulled stitches, burns or chemical damage.
- Check all D-rings that are part of the spotting belt for cracks, breaks and rough or sharp edges.
- Inspect any buckle for unusual wear, and broken or frayed stitching of the buckle attachments.
- All buckle tongues and grommets should be free of distortion and should not have sharp or rough edges. Webbing should not have additional punched holes and the grommets should not be loose. Any of this damage is enough for retirement.
- Quick-connect buckles should be checked for distortion and all outer and center support bars should be straight and not bent from extreme pressure. Dual tab release mechanisms should be free of debris and engage properly.
- Harness fall arrest indicators should not be "activated," meaning they should show no signs of being stretched or broken.
- If any of the above defaults are found, the equipment should be retired.
- While the industry standard allows for replacement of all soft equipment every five years, the recommendation is that all hard equipment be retired and replaced at least every three years.

Overhead Rigging

- All systems that require rigging from the ground (where individuals on the ground hoist an athlete with rope leveraged off a ceiling mount) should have a redundant system where every piece in the system has a backup equivalent to catch the athlete if any part of the first rig fails.
- This redundant system will have two ropes, one spotting belt and two carabiners or other attachment mechanisms.
- Security of other parts within rigging systems shall be thoroughly checked.

Overhead rig logging

- Rigging should be marked with or labeled with the date it was put into service for identification and to keep track of age.
- All rigging should have a section of the logbook where the inspection log sheets and all manufacturing information, recommendations and procedures are kept. Notes regarding the number of use cycles the equipment has experienced and information about the equipment's order, replacement and condition will also be stored there. The General Gym Equipment Inspection log should be used for notes during all inspections.

Overhead rig inspection

Rigging should be inspected according to a three-tier system:

1. All components should be regularly inspected by the coaching staff before every use; these routine inspections should consist of a quick but meaningful check of all parts which will be checked more thoroughly on a monthly and biannual basis. The inspector shall look for defects, weak points and any other sign of danger due to overstressed or broken components.
2. Secondly, all rigging involving ropes with attached connectors, swivels or carabiners will be inspected by coaches more rigorously once per month, following the general directions below, and just as before, coaches should look for defects or dangerous conditions that present a risk to athletes.
3. In addition, a more thorough inspection should occur annually.

Inspection detail

- The rig and its respective rope and metal connector pieces should be disassembled on a biannual basis.
- Any pulleys or other equipment that are part of the rigging system shall be inspected at this time.
- Coaches should check the security of the ropes and attachments, condition of the elastics and attachments of bungee rings. All components should be inspected for cracks, damages, signs of wear or loose parts.
- Any defects posing a safety risk should be addressed immediately and the equipment should be removed from service until the issue can be fixed.

Swivels and pulleys

- Swivels and pulleys should have unhindered operation.
- Swivels and pulleys should be inspected annually by a trained professional or competent member of IRR. (For details see the Carabiner and Metal Connector section on page 23.)
- Swivels should have a minimum breaking strength of 22 kN, as labeled by the manufacturer.