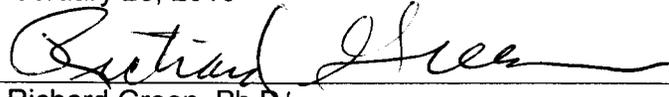


LINCOLN UNIVERSITY

Procedure: Procedures for Safe Operation of Utility Type Vehicles (UTVs)
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Approved By: 
Richard Green, Ph.D.
Interim President

**LINCOLN UNIVERSITY
PROCEDURES FOR SAFE OPERATION OF UTVS**

Please read the procedures outlined below, follow the instructions and complete the test that follows.

Safe Operation of Utility Type Vehicles (UTV) Procedures

TRAINING AND DOCUMENTATION

- Initial UTV Operator training must be completed prior to authorization to operate a UTV.
- UTV Operators are required to complete this training every two years.
- Refresher training must be taken if the employee causes property damage or an injury occurs resulting from the operation of a UTV.

UTV training consists of completing the following steps:

1. View the [Golf Cart Safety video](#).
2. Read this document in its entirety.
3. Complete the test and click the Submit button.
4. A score of 80% or better is required to pass.
5. You will receive notice of your test results from Risk Management or the Fleet Technician Coordinator.
6. Hands-on training is as required. Please contact Sergeant Ortega in the Department of Public Safety at aortega@lincoln.edu or via telephone to 484.365.7211 after you complete the test to make an appointment for hands-on UTV / golf cart operator training.
7. For questions or additional information regarding UTV safety– Contact Terrence Davis, Fleet Technician Coordinator at ext. 7113.

Upon completion of Safe Operation of UTV training, learners will be able to:

- Identify the characteristics and uses of a UTV.
- Explain the features and controls of a UTV.
- Discuss the stability and load capacity of a UTV.
- Complete pre-operation checks.
- Describe preventative maintenance.
- Recognize the hazards associated with operating a UTV.
- Outline safe operating procedures for a UTV.

ELIGIBILITY TO OPERATE

Requirements of Operators:

- University employees or “Authorized Drivers”
- Valid driver’s license
- Obey all traffic regulations
- Completed training; update training every two years
- Operate vehicles in a safe and responsible manner



UTILITY TYPE VEHICLE CHARACTERISTICS / USES

Permissible use of UTVs

- To transport people, equipment or supplies
- When operated by an eligible UTV operator
- When equipped with the “Required Equipment”
- On public roadways within the boundaries of Lincoln University’s campus
- On designated roadways only from sunrise to sunset at a speed of 25 mph or less with a Slow Moving Vehicle (SMV) emblem
- On walkways or sidewalks in such a manner that they do not impede or interfere with normal pedestrian traffic, to a maximum of 5 mph
- With the utmost courtesy, care and consideration for the safety of pedestrians who will be given the right of way at all times.

Potential UTV Hazards

There are several hazards associated with UTV operation, including:

- Rolling over on steep slopes, dangerous terrain, or fast turns
- Collision with another vehicle or object
- Pinch points, cut points, wrap points, and burns while working with the UTV
- Fluids under high pressure or other stored energy
- Injury to driver and passengers from shifting loads in cargo area
- Injury from falling from the UTV when mounting and dismounting
- Injury to the eyes from dust and insects while the UTV is in motion
- Injury to pedestrians from being struck by the UTV or from loads falling off of UTVs

Required Equipment

UTV must be equipped with the following:

- Operable brakes
- Proper working lighting when
 - operated during low light
 - conditions between dusk to dawn
- A slow moving vehicle (SMV) emblem visible from rear. (on public roadways)



UTV Characteristics

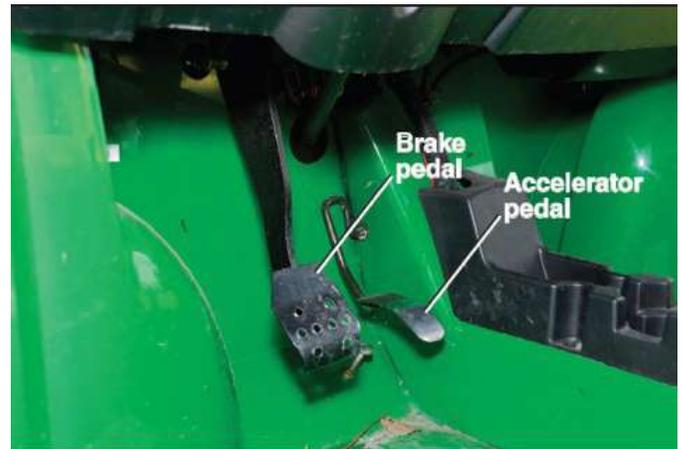
- Compact, powerful, and versatile machines
- Commonly gasoline, diesel, or electric powered
- Can be 2-wheel, 4-wheel, all-wheel drive or tracked
- Operates similar to a car/truck with a steering wheel, accelerator foot pedal and a brake foot pedal
- High / low range & reverse transmission
- Side by side or bench seating with seat belts
- Usually all-terrain tires with 20 p.s.i. or less tire pressure
- Hauling capability with cargo box
- Towing capability with hitch
- Easy to operate but, the operator must be trained, know the machine’s proper use, and its limitations

UTV Features



Features and location can vary with UTV make or model.
Supervisors should go through the features with staff prior to operating.

UTV Controls



Controls and location can vary with UTV make or model.
Supervisors should go through the controls with staff prior to operating.

Stability and Load Capacity

UTV compared to a highway vehicle

- UTV has a smaller wheelbase.
- UTV has higher center of gravity.
- UTV's center of gravity is always shifting during operation.
- UTV has low pressure off highway tires.

All of these factors can contribute to a UTV being less stable.

A UTV is more prone to roll or flip if driven too fast or steered abruptly.



Load Capacity

- Know the manufactures load weight limit and towing capacity. Do not exceed this limit.
- When hauling cargo, the center of gravity is raised and moves towards the rear axle, increasing the risk of tip-over in any direction.

Towing Capacity

- Do not tow a load that exceeds the maximum towing load as specified by owner's manual.
- Weight of towed load (trailer + cargo) must never exceed the vehicle payload.
- Travel at a speed slow enough to maintain control.
- Stopping distance increases with speed and weight of towed load.
 - Allow extra time and distance to stop.
- Excessive towed load can cause loss of traction and loss of control on slopes.
- Tow only with an approved hitch designed for towing.
- Use caution when turning under adverse surface conditions.
 - Rain, snow, or mud

UTV Attachment and Operation

Attachment installation and use

- Carefully read attachment manual and follow all instructions and warnings.
- Attachments can include snow plows, sprayer units, dry material spreaders, wenchers & roof racks.
- Attachments must be compatible with the machine.
- Verify that all connections are secure and attachment responds properly to controls.
- Attachment changes can effect:
 - Intended use of UTV, weight or balance of the machine, machine controls, performance and reliability



UNIVERSITY EMPLOYEE: OPERATOR PROCEDURE & PERFORMANCE

UTV operators are prohibited from the following when operating a UTV:

- Talking on a cell phone or texting
- Use of radio/audio headsets or ear buds
- Use for personal business

Preventative maintenance

- Keep all guards and safety devices in good condition and properly installed
- Check all fluid levels
- Follow owner's manual for maintenance schedule
- Conduct pre-operation inspection

Pre-Operation Inspection must include:

Inspect machine carefully by walking around it before starting

- Check tires: proper inflation and condition
- Check fuel level
- Check for puddles, leaks, odors, strange sounds or behavior
- Check lighting: headlamps, tail lamps, brake lights and turn signals
- Check brakes: work smoothly without noise or pulling
- Check slow moving vehicle emblem: in place, clean, and visible
- Check that equipment and supplies are adequately secured

Driving Safety: Public Roads

UTVs must be driven at a safe speed given the operating conditions

- Excessive speed requires a greater stopping distance and increases risk of tip over on corners
- When operating on a roadway, maintain a safe distance behind other vehicles
- Move equipment on roadways at off-peak traffic hours when possible
- Stay alert for traffic and roadside obstacles
- Must have proper lighting and marking to assure visibility
- Make sure loads are properly secured

Driving safety: traveling within the grounds

- When operating on a travel path or sidewalk, do not exceed the speed of the bicyclists or pedestrians.
- When parking or stopping, do not block sidewalks or travel paths.
- When approaching pedestrians, use extreme caution and give pedestrians the right of way.
- Use curb cuts when navigating from roadways to sidewalks. Jumping curbs can cause damage to the UTV and compromise vehicle control.
- When leaving a UTV unattended, the vehicle must be taken out of gear, ignition must be turned off and parking brake applied. Remove and secure the vehicle ignition key from unauthorized use.

Defensive driving:

- Stop at all “blind intersections” and then proceed with caution.
- Yield to the right of way to pedestrians.
- Ensure other drivers have seen the UTV prior to progressing. Operators must not assume that motor vehicle drivers give “right of way”.
- Verify safety prior to all turns. Operators must look over the shoulder in the direction of travel prior to the turn to check for motor vehicles, pedestrians and bicyclists.
- Ensure use of seat belts if UTV is equipped.

Passenger Safety:

Operators are responsible for the safety of their passengers including:

- Keep head, legs and arms within the cab.
- Remain in seats.
- Do not exceed manufacturer’s load limits. (Number of passengers or weight)
- Use of seat belts if provided.
- University Employee: Operator Procedure & Performance

Off Road Operation:

When UTVs are operated off of roadways, operators must:

- Be alert to ground hazards, look ahead at the terrain.
- Watch carefully for holes, ruts, and other obstacles.
- Watch for uneven surfaces, drop offs and overhead clearance obstructions.
- Reduce speed according to the terrain and visibility conditions.
- Avoid slopes when possible. When traveling on slopes, go up and down and not sideways.

Using a UTV during public events

- Drive defensively and pedestrians have the right of way.
- Avoid driving in areas that are highly congested with pedestrians.
- Designated vehicle travel areas for the event. Whenever possible stay on them during the event.
- If driving in a congested area is a must, use a spotter to assist with crowd control. (Example: Emergency Situation)
- Maintain a safe following distance from other UTVs, golf carts or pedestrians even at slow speeds.
- Use proper signals, including hand signals, to warn others when you are turning.
- Avoid parking on sidewalks or designated pedestrian travel areas.
- Communicate with other drivers by using eye contact, hand signals, radio communication, or other means.

Off Road Operation: Riding through water

- Never cross a body of water where the depth is unknown.
- Never cross water with a swift current.
(Tires may float, making it difficult to maintain traction and control.)
- Cross at a point where both banks have a gradual incline.
- Maintain a slow steady speed and avoid submerged obstacles.
- After leaving water, always dry the brakes by applying light pressure several times.

SUMMARY

- There are a variety of uses for a Utility Type Vehicle (UTV).
- The characteristics of a UTV differ from that of a car or truck
- Features and controls of a UTV can vary. Supervisors must go over features and controls before initial use.
- Understand the stability and load capacity of the specific UTV being operated.
- Follow safe operating procedures including on---campus driving, defensive driving, and motor vehicle laws when on the road.
- Recognize and avoid hazards when operating a UTV.

Safe UTV operation requires attention to the machine, the surroundings, and others around you.

Please complete the test that follows. You may use this guide or any other resource to complete the test.

Click submit when finished.

Safe Operation of Utility Type Vehicles (UTV) Training TEST

Name:

Date:

Supervisor:

1. The pre-operation inspection shall include:
 - Tires and wheels
 - Controls and cables
 - Lights and electrics
 - Oil, fuel, fluids, and air filter
 - Chassis, suspension, driveshaft, and external equipment
 - All of the above
2. Helmets must be replaced as recommended by their manufacturer or sooner if a helmet is involved in an impact-related accident or shows significant sign of wear.
 - True False
3. UTVs are street legal in all states.
 - True False
4. Passengers in a UTV must:
 - Ride in the back where the cargo goes if all the seats are taken.
 - Ride in a designated seat in the UTV but don't have to wear a seatbelt.
 - Remain buckled at all times and keep all body parts inside the vehicle when in motion.
5. A UTV is especially unstable and dangerous on which of the following:
 - A side slope
 - Going up a hill
 - Going down a hill
 - In mud or other slick flat surfaces⁴⁸
6. Never attempt to turn around when climbing or descending a significant slope.
 - True False
7. Which one of the following UTV cargo hauling statements is false?
 - If you have heavy cargo in challenging terrain, consider removing half of it and making two trips.
 - Solid cargo can shift, so always make sure it is well secured.
 - Liquid loads in tanks can slosh and instantly shift large amounts of weight to the downhill side.
 - Secure heavier cargo on top of the light cargo for better balance.
8. If your UTV is involved in an accident that causes damage to the UTV but no personal injury to you, you don't have to report the accident.
 - True False
9. Before starting a UTV you should, inspect the machine by walking around it
 - True False
10. The all-terrain tires on a UTV are inflated to 20 psi or greater.
 - True False

11. If traveling on a slope cannot be avoided:
- travel perpendicular to the slope
 - travel straight up and down a slope
 - all the above
 - none of the above
12. A UTVs stopping distance increases with speed and weight of a towed load.
- True False
13. Adding attachments on a UTV can effect which of the following?
- the controls
 - the performance
 - reliability
 - all of the above
14. A passenger in a UTV:
- must ride in the cargo box to evenly distribute the center of gravity
 - can stand on the UTV while it's moving, if they use the handholds
 - can exit the UTV while coming to a rolling the stop
 - must wear the seat belt, keep head, arms, and legs within the cab
15. The center of gravity of a UTV will lower and move towards the front axle if a load is added to the cargo bed.
- True False
16. An off-road hazard to considered when operating an UTV is?
- riding through water
 - overhead obstructions
 - poor ground conditions
 - all of the above
17. "Standard" UTV controls include:
- Joystick controls for steering, accelerator pedal and brake pedal
 - Steering wheel, hand controls for accelerating and braking
 - Steering wheel, accelerator pedal and brake pedal
 - Joystick controls for all movement functions
18. A UTV is more prone than a truck to roll or flip if driven too fast or steered abruptly.
- True False
19. When operating a UTV on campus, operators must yield to the right of way to pedestrians at all times.
- True False
20. Before starting a UTV you should, make sure you understand the instrument panel and controls
- True False



A certificate will be awarded for successful completion of this training.

References

- National Safe Tractor and Machinery Operation Program, Hazardous Occupations Safety Training in Agriculture. Penn State University, Ohio State University, and National Safety Council.
- OSHA29CFR1910and29CFR1928--
- Safe Operation of Utility Type Vehicles (UTVs) Fact Sheet, Ohio State University
- Standards and Safe Operation of Utility Vehicles, University of Minnesota
- Utility–Terrain Vehicle Operator Training Course, U.S. Department of Agriculture
- John Deere Gator Utility Vehicle TS and TH6x4 Operator Manual, John Deere, 2004