

Alternative Vehicles

University of Tennessee Safety Policy GS-025

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Purpose

Alternative Vehicles have unique qualities and limitations (both practical and legal). The purpose of this policy is to establish guidelines for the legal and safe use of alternative vehicles while operating on university streets or property, and to establish guidance on the legal and safe use of University operated alternative vehicles on state and city owned streets. In addition, this policy establishes the procedures and guidance for training of operators, enforcement of operation, accident reporting, and criteria for minimum vehicle qualifications prior to purchase or acquisition.

Policy

It shall be the policy that the University of Tennessee, Knoxville establishes procedures and guidance regarding the safe and lawful operation of Alternative Vehicles on campus owned property and safe and lawful operation of University operated vehicles on non-campus owned streets and property.

Several classes of Alternative Vehicles may be in use and must be operated in accordance with the requirements of the Federal Motor Vehicle Safety Standards, State of Tennessee Motor Vehicle Laws, and vehicle manufacture requirements as they apply.

Scope and Applicability

Types of vehicles and locations covered:

All alternative vehicles (as defined in this policy) operated on university streets or property are governed by this policy. All use of University owned, or University operated alternative vehicles on city and state streets and highways is covered.

Operators covered include:

- University employees, students, and volunteers
- Friends of the University (e.g. visiting scholars)
- Employees of Auxiliary Services operated by third party contractors
- Contractors and Visitors

Abbreviations and Definitions

Definitions and Terms

Alternative Vehicle: A motor driven vehicle not meeting the definition of a standard passenger or utility vehicle such as sedans, trucks, or vans and whose primary function is transportation.

Examples include:

- Golf carts

- Low and Medium Speed Vehicles
- Off-Highway Vehicles
- All-Terrain Vehicles (ATV)

Excluded from the definition are powered industrial trucks (forklifts), tractors, cranes, mobile lifts, backhoes, lawn mowers, bulldozers, and similar equipment whose intended purpose is not transportation. Motorized one and two-wheeled vehicles such as Big-Wheels, scooters, and electric skateboards are also excluded.

See [Appendix B](#) for Definitions of specific classes.

University Operated Vehicles: Alternative vehicles that are purchased, leased, traded for, loaned, donated, and similar activities where an alternative vehicle is under the control of University employees, students, and volunteers.

Third-Party University Operated Vehicles: Alternative vehicles that are purchased, leased, traded for, loaned, donated, and similar activities where an alternative vehicle is under the control of an employee of a third-party contractor auxiliary service provider such as University Dining.

Contractor Operated Vehicles: Alternative vehicles that are purchased, leased, traded for, loaned, donated, and similar activities where an alternative vehicle is under the control of a third-party contractor. Examples include maintenance and construction contractors or ride share/taxi service providers.

Campus-owned Streets: includes all streets on campus that are owned by the University. Excluded from this definition are the streets Neyland Drive, Alcoa Highway (route 129), Joe Johnson Drive, and Cumberland Avenue. Refer to <https://maps.utk.edu> and view the “street ownership” layer for more details as street ownership may change with campus development projects.

Public Roads: Any roadway that is not a campus-owned street. This includes Neyland Drive, Alcoa Highway (route 129), Joe Johnson Drive, and Cumberland Avenue. Refer to <https://maps.utk.edu> and view the “street ownership” layer for more details as street ownership may change with campus development projects.

Roles and Responsibilities

Policy Administration and Enforcement

UTPD: (Law Enforcement)

Issues related to the enforcement of laws and specifically (but not limited to) motor vehicles laws of the state of Tennessee are administered and enforced by the University of Tennessee Police Department.

Contact: <https://utpolice.utk.edu/> | 865-974-3114 | utpolice@utk.edu

Parking and Transit Services: (Parking)

Parking and Transit Services will administer and enforce any issues related to parking and parking violations. These can include issuing citations for parking in prohibited zones such as Handicapped Parking or other prohibited zones.

Contact: <https://parking.utk.edu/> | 865-974-6031 | parking@utk.edu

Environmental Health & Safety: (Safe Operation)

Issues related to the safe operation of University Operated Vehicles shall be referred to Environmental Health & Safety (EHS). EHS can enforce safe operation and conditions in congruence with other occupational or

campus safety programs. In general, this means that EHS can inspect or observe conditions and operations as well as investigate incidents, accidents, and near-misses related to occupational risks and those that may impact the campus community.

EHS will also provide training resources and materials to be implemented with the assistance of relevant campus resources to train Campus Operators. These materials will be made available to third-party and contractors on-request.

Contact: <https://ehs.utk.edu/> | 865-974-5084 | safety@utk.edu

Fleet Management

Fleet management will be the department through which new University-owned and leased alternative vehicles are acquired and delivered. Fleet Management does not account for loaned or donated vehicles provided directly to a department.

Contact: <https://fleetmanagement.utk.edu/> | 865-974-2134 | fleetmanagement@utk.edu

General Inquiries

General questions regarding the interpretation or implementation of this policy should be directed to EHS.

Contact: <https://ehs.utk.edu/> | 865-974-5084 | safety@utk.edu

Campus Operators and Campus Third-Party Operators

Operators

Campus operators include University employees, students, volunteers, and Friends of the University (e.g. visiting scholars). These operators must follow all training and operational procedures indicated in this policy. They must participate in a formal training course.

Supervisors

After completion of a training course supervisors or their designee must ensure the operator is introduced to the vehicle, its operation, any Danger, Warning, and Caution signs or tags, and other requirements indicated by the manufacturer (as per the vehicle manual). This generally includes a test drive. The supervisor should verify that the operator understands and possesses the skills to operate the vehicle.

Note: Supervisors performing the vehicle familiarization and test drive shall be competent to do so. In order to be competent, supervisors must have successfully completed a formal training course and possess the knowledge and skills to operate the vehicle.

Third-Party Operators and Supervisors

Third party campus auxiliary units (e.g. Campus Dining) will be responsible for following operational requirements and training and familiarizing their employees. Training materials will be shared with these units in coordination with EHS (training materials holder) and the UTK Campus Operations & Auxiliary Services Office (liaison to Auxiliary Groups).

Contractors

Third party contractors outside of campus auxiliary units will be responsible for following operational requirements and training and familiarizing their employees. This policy will be shared with these units upon request by the sponsoring department.

Requirements and Procedures

Operator Prerequisites

All operators of alternative vehicles must meet the following criteria *before* operating these types of vehicles. Operators must:

- Ensure their vehicle is registered with a parking permit issued by the University of Tennessee Parking and Transit Services. The permit must be displayed on the front of the vehicle.
- Be at least 18 years old.
- Possess and carry a valid driver's license.
- Know and adhere to the State of Tennessee Motor Vehicle Laws.
- Know and adhere to the requirements of the vehicle manufacturer.
- Successfully complete an Alternative Vehicle Safety Training Course
- Complete a statement of understanding and compliance. (Appendix A or equivalent electronic means may be used).
- Contractors shall ensure employees are trained/and provide assurance on request.

Vehicle Operating Standards

Alternative vehicle operation is governed under [Tennessee Code Annotated](#) (Chapter 8 Operation of Vehicles - Rules of the Road). Operators are subject to the rules of the road, including stopping, turning, and safe operation. Alternative vehicle operators observed in violation of these rules can be cited by the police. The University of Tennessee Police Department is responsible for enforcing these rules on campus.

General Operation Rules

1. Alternative vehicles shall be operated in a manner that does not interfere with normal pedestrian or vehicular traffic flow.
2. Alternative vehicles will be driven only on streets permitted to the class of vehicle and pedestrian sidewalks on campus
3. No vehicle traffic will be permitted on covered walkways, dedicated pedestrian bridges, or in buildings unless prior approval is granted by the University of Tennessee Parking and Transit Services.
4. Always travel at least six feet away from buildings.
5. Operators are to use caution at all times. Stunt driving, excessive speed and horseplay are prohibited.
6. Operators or passengers shall not jump on or off vehicles in motion.
7. No passengers will be permitted on alternative vehicles unless provided with adequate seating. No one is permitted to ride on the running boards, fenders, or any part of the vehicle except the seats.
8. Always remain seated and hold on while vehicle is in motion.
9. Operators may not wear headsets, ear protection, or other devices at any time which may impede their ability to operate the vehicle.
10. Avoid sudden stops or change of direction that may result in a loss of control.
11. Operators shall not stop in the middle of roads or walkways.
12. Alternative vehicles are not to be driven or parked on landscape and lawn areas unless it is the only available way to allow a pedestrian the proper right-of-way. The vehicle should be brought to a full stop on the landscaped area, then immediately returned to the walkway as soon as the area is clear.
13. Do not leave keys in unattended vehicles.
14. Operators of alternative vehicles that will be used in remote areas are encouraged to develop an offsite safety plan for vehicular use in the field.
15. Vehicles operated after dark shall be equipped with headlights and taillights.

Speed Limit

1. All speed limits shall be observed. When driving an alternative vehicle on a walkway during heavy pedestrian traffic, vehicle speeds shall be reduced to a walking pace.
2. Operators must always consider the terrain, weather conditions, existing pedestrian and vehicular traffic that may require driving at slower speeds.

Intersections and Crosswalks

1. Operators must come to a complete stop before crossing a roadway or proceeding through intersecting sidewalks or other areas that have blind spots.
2. Alternative vehicles cannot use pedestrian crosswalks to cross roadways. To avoid the use of pedestrian crosswalks, an operator may need to merge into the normal flow of traffic at a reasonable and prudent distance from the intersection. This will allow the vehicle to safely cross the intersection without obstructing traffic, illegally using the pedestrian crosswalk or impeding the flow of traffic. This is in accordance with the Tennessee Code Annotated 55-8-185, where off-highway motor vehicles are only allowed to drive on a road “at a place where a quick and safe crossing may be made.”
3. When the vehicle is crossing the road, the operator must abide by the rules of the road. When making turns, the operator must signal using either a mechanical/light turning signal or an arm turning signal.
4. Operators must obey all traffic signals. Operators must look in all directions prior to entering intersections and crossing.
5. Slow down before and during turns. All turns shall be executed at reduced speeds. Failing to do so may result in a vehicle rollover.

Pedestrians

1. Operators shall follow all campus rules on pedestrian right-of-way. Alternative vehicles must yield to pedestrians on sidewalks.
2. Due to the small size and limited sounds that many alternative vehicles exhibit, operators must account for the fact that a pedestrian may be unable to hear or see the vehicle or unable to move quickly.
3. Operators must reduce speeds in heavy pedestrian traffic or stop until the pedestrian traffic has lessened.
4. Operators must never attempt to get pedestrians out of their way by intimidation. Intimidation is viewed as driving too close to pedestrians in a manner that may pressure them to get out of the way.
5. Whenever operators feel they cannot predict the actions of a pedestrian or other vehicle operator, they must come to a complete stop before proceeding.

Parking

1. The department responsible for the unit/vehicle is also responsible for locating a safe location to store the vehicle that does not block parking spaces or blocks ingress or egress.
2. In consideration of maintaining campus aesthetics, consideration should be given to the selection of regular or long-term parking locations. Parking and Transit Services has final responsibility for determining whether a parking spot is appropriate.
3. Alternative vehicles are not permitted to use vehicular or motorcycle parking spaces.
4. Keys shall be removed from the vehicle while it is unattended.
5. Alternative vehicles shall not be parked within ten (10) feet of the entrance or exit of any building, except at loading docks.
6. Alternative vehicles shall not be parked in a way that blocks fire hydrants, emergency exits, and vehicular or pedestrian traffic. Vehicles shall not be parked in fire lanes, in metered parking spaces, in handicapped parking, impeding handicapped ramps or in reserved parking.

7. Sidewalk parking is only allowed where it does not interfere with accessibility or safety. This means ensuring that vehicles do not obstruct the flow of traffic, especially near entrances and exits to buildings and that space if available for wheelchairs or other assistive devices be operated unimpeded.

Cargo

1. Alternative vehicles equipped with a cargo area shall not be loaded in excess of the manufacturer's weight rating and requirements. Overloading decreases maneuverability and safe operation.
2. Materials and equipment shall be loaded and secured so they will not cause a hazard by shifting or falling off the vehicle without human intervention. The load must be secured such that the operator's attention can be given solely to operating the vehicle.
3. Top heavy equipment is especially dangerous and should be secured near the center of the vehicle to avoid tipping. Be extremely careful during turning maneuvers.
4. Cargo must not extend more than one foot from either side or the front of the vehicle.
5. Loads that extend more than three feet from the rear of the vehicle must be flagged with a brightly colored material, usually red or orange.
6. Cargo such as pipe or ladders shall be secured/mounted on proper rack systems. Extra precaution must be taken when transporting these types of cargo to prevent injury to nearby pedestrians.
7. The operator must not exceed the recommended towing capacity of the vehicle when towing trailers or trailer-mounted equipment. The operator must ensure the trailer will not overpower the braking abilities of the vehicle.
8. Safe material handling practices shall be followed when transporting chemicals such as containers of fuel or pesticide spray tanks. All containers/tanks must have spill-proof safety caps and be properly secured in the cargo area.

Refueling and Battery Charging

1. Refueling must be completed outdoors, away from any sources of ignition and at least 50 feet from building HVAC air-intakes.
2. Smoking is prohibited when the vehicle is being refueled and within 15 feet of vehicles where battery charging is in progress.
3. Battery charging can generate flammable hydrogen gas and shall be performed in areas with adequate ventilation.
4. Approved flammable liquid storage cans must be used when re-fueling with portable containers.
5. Refueling is prohibited within 20 feet of lawn and landscape areas.

Inspection and Maintenance

1. Vehicles must be inspected and maintained in accordance with manufacturer's recommendations.
2. Electrical or mechanical problems must be reported immediately by the vehicle operators to their supervisors.
3. Vehicles that are unsafe to operate (e.g. brake failure) shall be taken out of service and secured to prevent use until repairs are completed. In the event that a vehicle is in the possession of Fleet Management and they deem it unsafe to operate, the Campus Operator shall be informed and held responsible for taking the vehicle out of service.

Vehicle Requirements

New Vehicle Acquisition

New alternative vehicles acquisitions shall be done through and delivered to Fleet Management.

Contact: <https://fleetmanagement.utk.edu/> | 865-974-2134 | fleetmanagement@utk.edu

Loaned or Leased Vehicles

It shall be the responsibility of the department acquiring a loaned, gifted, or leased vehicle to ensure that the vehicle meets the criteria for its allowed and intended use. If the vehicle is intended for public roads the department must ensure that it meets the NHSTA Standard and is appropriately registered and licensed.

Vehicles for Use on Public Roads (non-campus streets)

For vehicles to be used on public roads, such vehicles acquired must fully meet the National Highway Safety and Traffic Administration (NHSTA) Standard 500 (49CFR Part 571.500), which is applicable to low-speed and medium speed vehicles. See [Appendix C](#) for a summary of the Standard Requirements.

A vehicle operated on public roads must be registered and appropriately display a license tag.

Some vehicles can be configured by a dealer to comply with 49CFR Part 571.500 if a manufacturer permits it. For example, some Club Cars that are configured as golf carts—and are not permitted on public roads—can be configured with all features required and be classified as a low-speed vehicle. Once configured an affidavit must be signed indicating the standards are met and the vehicle is registered.

If a manufacturer indicates (usually in the manual or on a caution/warning/danger tag) that a feature cannot be installed for any reason, then the vehicle cannot meet the standard and shall not be classified as a low-speed vehicle. For example, a manufacturer may not allow the installation of seatbelts due to a lack of rollover protection systems. Because the manufacturer will not allow installation, the 49CFR Part 571.500 standard cannot be met.

Vehicles for use on Campus Streets Only

The minimum safety equipment/design specification must include:

1. No fewer than four wheels touching the ground/roadway at all times.
2. All original equipment must be in good working order.
3. If operated after dusk and before dawn, headlights, taillights, and brake lights (2 of each).
4. A yellow or amber flashing light(s) visible from 360 degrees shall operate while the vehicle is in motion.
5. A horn with an activation button/switch within reach of the driver.
6. The vehicle must have an ignition/on-off key to allow removal of the key to prevent unauthorized use.
7. Parking-brake with adequate strength to hold the cart at least a 15-degree angle.

Accident Reporting Procedure

All accidents involving an Alternative Vehicle will be reported immediately to the University of Tennessee Police Department 865-984-3114 and the department to which the vehicle belongs.

The Office of Risk Management has separate requirements for reporting vehicular accidents that may involve calling a State hotline. In addition, they would manage cases involving injury and compensation (e.g. Workers' Compensation). If you are involved in an accident you should contact Risk Management for guidance.

Contact: <https://riskmanagement.tennessee.edu/> | 865-974-5409 | riskmanagement@tennessee.edu

Training and Recordkeeping

Contractors

Contractors shall assure that their employees are trained and qualified to operate their alternative vehicles on campus streets in accordance with this document's General Requirements. They shall inform their employees of the provisions in this policy.

Assurances of training shall be made available to the University upon request.

Campus Operators

Formal Training Course

A training course will be made available by EHS. It may be offered via several modes (classroom, online) and will include an evaluation in the form of a quiz or test. If the test is not passed by the participant, EHS may offer remediation or alternative testing as deemed appropriate by EHS.

Training and Familiarization

It shall be the responsible of the unit head (Department Head, Manager, etc.) to ensure that vehicle operators are trained prior to initial use of the vehicle. Authorized users of alternative vehicles shall successfully complete a formal training course covering and receive a familiarization with the vehicle in accordance with manufacturer recommendations (provided by the relevant supervisor).

In addition to the course, competent and experienced supervisors shall ensure that operators under their supervision are familiarized with the operation the vehicle. This includes familiarization with manufacturer recommendations that should include:

- Operation and Controls
- Any Danger, Warning, Caution, or information labels
- Relevant inspection and maintenance
- A test drive to familiarize the operator with operation and handling.

Training Records are to be maintained by the department that operates the alternative vehicle.

Refresher training may be required for individuals who have demonstrated poor skills, either by a history of accidents, observed violation of this policy or subject to enforcement action while operating an alternative vehicle.

Refresher training may be required as a result of policy and procedure updates.

Policy Assurance

Each campus operator must assure that they have read and will comply with this policy. This can be performed via the Assurance Form in [Appendix A](#) or via electronic means where available. Documentation shall be maintained by the unit or department.

Enforcement

Operators who violate this policy will be subject to monetary penalties as per existing laws and University Policy.

Policy Review and Revisions

This policy shall be reviewed at least every three years and revised as needed by the Traffic and Parking Authority. More frequent review may be completed in response to regulatory changes, upon request, or when deficiencies are noted.

References

[Tennessee Code Annotated Title 55](#)

[Department of Transportation § 571.500 Standard No. 500; Low-speed vehicles.](#)

Appendices

[Appendix A: Alternative Vehicle Safety Assurance Form](#)

[Appendix B: Vehicle Types as Defined by TCA 55-8-101](#)

[Appendix C: Low and Medium Speed Required Equipment](#)

Disclaimer

The information provided in these guidelines is designed for educational use only and is not a substitute for specific training or experience.

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Appendix A

Alternative Vehicle Safety Assurance

I have read and understand the Alternative Vehicle Safety Policy, completed the necessary training, and will abide by the requirements.

Further, I will not engage in horseplay and will operate the alternative vehicle in a safe manner.

I understand that failure to abide by these conditions may result in disciplinary action, up to and including termination.

Date Training was completed: _____

Name (print)

Signature

Date

Supervisor Name

Department/Organization

This form will be kept in the department's files for a period of at least three years.

Appendix B

Vehicle Types as Defined by TCA 55-8-101

“Golf cart” means a motor vehicle that is designed and manufactured for operation on a golf course for sporting or recreational purposes and equipped with safety belts installed for use in the left front and right front seats and that is not capable of exceeding speeds of twenty miles per hour (20 mph);

“Low speed vehicle” means any four-wheeled electric vehicle, excluding golf carts, whose top speed is greater than twenty miles per hour (20 mph) but not greater than twenty-five miles per hour (25 mph), including neighborhood vehicles. Low speed vehicles must comply with the safety standards in [49 CFR 571.500](#); [TCA 55-8-101(36)]

“Medium speed vehicle” means any four-wheeled electric or gasoline-powered vehicle, excluding golf carts, whose top speed is greater than thirty miles per hour (30 mph), but whose maximum speed allowed is thirty-five miles per hour (35 mph) only on streets with a forty mile per hour (40 mph) or less posted speed limit pursuant to [§ 55-8-191\(b\)\(1\)](#), and otherwise meets or exceeds the federal safety standards set forth in 49 CFR 571.500, except as otherwise provided in § 55-4-136; [TCA 55-8-101(38)]

“All-terrain vehicle” means either:

- (A) A motorized nonhighway tire vehicle with no less than four (4) nonhighway tires, but no more than six (6) nonhighway tires, that is limited in total dry weight to less than two thousand five hundred pounds (2,500 lbs.), and that has a seat or saddle designed to be straddled by the operator and handlebars for steering control; **or**
- (B) A motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, snow, or other natural terrain and not intended for use on public roads traveling on two (2) wheels and having a seat or saddle designed to be straddled by the operator and handlebars for steering control; [TCA 55-8-101(1)]

“Off-highway vehicle” or “off-highway motor vehicle” means any vehicle designed primarily to be operated off public highways, including any Class I off-highway vehicle, Class II off-highway vehicle, all-terrain vehicle, any motorcycle commonly referred to as a dirt bike, or any snowmobile or other vehicle designed to travel exclusively over snow or ice; [TCA 55-8-101(45)]

“Class I off-highway vehicle” means a motorized vehicle with not less than four (4) nonhighway tires, nor more than six (6) nonhighway tires, whose top speed is greater than thirty-five miles per hour (35 mph), that is limited in total dry weight up to two thousand five hundred pounds (2,500 lbs.), that is eighty inches (80”) or less in width, and that has a nonstraddle seating capable of holding no more than four (4) passengers and a steering wheel. “Class I off-highway vehicle” includes mini-trucks; [TCA 55-8-101(12)]

“Class II off-highway vehicle” means any off-highway vehicle that is designed to be primarily used for recreational purposes, that has a nonstraddle seating capable of holding at least two (2) but no more than four (4) passengers and a steering wheel, and that is commonly referred to as a sand buggy, dune buggy, rock crawler, or sand rail. “Class II off-highway vehicle” does not include a snowmobile or other vehicle designed to travel exclusively over snow or ice; [TCA 55-8-101(13)]

[Retrieved from <http://www.tsc.state.tn.us/Tennessee%20Code> March 3, 2020]

Appendix C

Low and Medium Speed Required Equipment

Excerpt of § 571.500 Standard No. 500; Low-speed vehicles.

Each low-speed vehicle shall be equipped with:

1. Headlamps,
2. Front and rear turn signal lamps,
3. Tail lamps,
4. Stop lamps,
5. Reflex reflectors: one red on each side as far to the rear as practicable, and one red on the rear,
6. An exterior mirror mounted on the driver's side of the vehicle and either an exterior mirror mounted on the passenger's side of the vehicle or an interior mirror,
7. A parking brake,
8. A windshield that conforms to the Federal motor vehicle safety standard on glazing materials (49 CFR 571.205).
9. A VIN that conforms to the requirements of part 565 Vehicle Identification Number of this chapter, and
10. A Type 1 or Type 2 seat belt assembly conforming to Sec. 571.209 of this part, Federal Motor Vehicle Safety Standard No. 209, Seat belt assemblies, installed at each designated seating position.
11. Low-speed vehicles shall comply with the rear visibility requirements specified in paragraphs S6.2 of FMVSS No. 111.
12. An alert sound as required by § 571.141.

[Retrieved from <https://www.govinfo.gov/content/pkg/CFR-2019-title49-vol6/xml/CFR-2019-title49-vol6-part571.xml#seqnum571.500> March 4, 2020]