Objective: Students will apply risk reduction strategies and techniques to a variety of high risk, complex, and especially dangerous driving environments.

Consider this graphic to put the driving environment in perspective:


You have already spent quite some time on learning the SIPDE system which helps you to see and interpret information while you drive a car. All three of the factors above contribute to how well you interact with other roadway users and how well you understand and react to situations on the road. Different situations have different levels of risk. Depending on your skill level and how much time you have spent behind the wheel, will impact how well you apply the SIDPE system when driving. Certain driving environments are more dangerous and present more risk than others. Driving on a rural roadway with very few cars is much less risky to you and other roadway users than a 6-lane highway where cars are traveling at rates of speed in excess of 70 miles per hour. Driving in a residential, house lined street presents a different set of dangers than a street with businesses or industrial warehouses. Intersections, curves and hills each present their own level of risk because they all involve situations where you line of sight is limited. This section of the course will focus on the different driving environments you will encounter on the roadway and how you can apply the SIPDE system to share the road with other users and reduce the risk for all involved.

Types of Driving Environments

| LOW RISK | MODERATE RISK | HIGH RISK |
| :---: | :---: | :---: |
| Speeds less than 40mph | Speeds less than 60mph | Speeds under 80mph |
| Controlled/Uncontrolled <br> Intersections | Same as low risk | Same as others plus <br> highway driving |
| Two-way/One-way/Multi- <br> lane Streets | Same as low risk | Same as others plus <br> highway driving |
| Traffic flow is minimal | Traffic flow is moderate | Traffic flow is heavy and <br> unpredicatable |
| Urban/suburban, rural <br> settings | Urban/suburban, rural <br> settings | Urban/suburban, rural <br> settings |
| Gives the beginner driver <br> more time to adapt to <br> changes | Gives the beginner driver <br> more time to adapt to <br> changes | Higher speeds require a <br> faster application of SIPDE <br> techniques |

Can you think of some examples of each type of environment in the area where you live? Next time you are in the car and not driving, pay attention and look around. What do you see? How does the environment change as you travel? What is the traffic flow like? Does it change with the time of day you are on that particular road? Do you have to get on the highway to get to where you are going?

Does the driving environment ever change from one type of risk to another? What if it started to rain? What if there was suddenly construction? What if a large truck just entered your lane and blocked your vision? Every driving environment can change at any given time and sometimes without very much notice. You must always be ready to adapt and react to changes in the driving environment in order to reduce the risk of a collision. In the following sections each of the risk environments will be addressed in detail.

## Low Risk Environments

Engineers and city planners build roadways to include safety features that are designed to lower risk and keep drivers as safe as possible. Some of these features specifically found in lower risk driving areas include:
-wide, well-marked lanes designed to handle even the largest vehicles
-protected left turn lanes
-safety designed guard rails to help with impact
-sign posts designed to break away when struck
-curbs, shoulders, sidewalks
-crowned or grooved roads to sweep away water when it is raining
-median barriers to restrict or influence traffic flow
These safety features work well only when a driver also interacts appropriately with them and other road users. Good drivers are constantly applying the SIPDE techniques taught in this course to predict, adapt, and avoid a collision. Even in low risk driving environments there will be threats that you as the driver of a car must be aware of attend to.

At times, especially when we drive the same route say to work or school, a driver may get complacent and not be as vigilant as they should be because all the other times they have driven this route, there have been no potential hazards. This causes drivers to make poor decisions such as, taking a left turn too close in front of another oncoming car, speeding, or driving distracted by their cell phone.

The only way to truly be sure there are no threats in your path of travel is to never get in your car at all. Every time you drive, you must aware, keep your mind focused on the driving task, and understand that at any given time a threat could enter your path of travel. It is important to keep looking down the road ahead of you 20-30 seconds ahead so that you have time to search and identify and react, if necessary, to any possible hazards in front of you.

Take these situations for example:

1. Other road users such as pedestrians, parked cars, and oncoming traffic all pose threats if not handled correctly. Each of these could enter the roadway at any time and you must adjust your speed and place your vehicle as far away from the potential threat as possible. Crosswalks are engineered to facilitate the safe crossing of people on foot, however, never assume the pedestrian will follow the traffic signals properly. It is your job to scan the area and look for anyone entering the intersection on foot. Children in neighborhoods are always a serious hazard that can pop up at any time. They can be on bikes, dart into traffic to get a ball, and often do not themselves understand the danger of the roadway.
2. Traffic flow, lane markings, and speed limits change continuously on most roadways. You must always look for what type of roadway you are traveling on: One-way? Two-way? How many lanes in each direction? Is there a left turn lane designated just for that purpose? Sometimes the lane you are traveling in will end, or be blocked for some reason. Anticipate these changes by switching lanes as early as possible. When you wait until the last minute to make a change, you may disrupt the flow of traffic because you have to squeeze your way into another lane. When traffic is heavy, a gap will be harder to find so the more time you have the better. Be sure to always communicate your desire to change lanes by using your turn signal well in advance. Drivers will usually make a gap for you if you give them notice and do so well in advance and as soon as you see your becoming unavailable. DO NOT be one of those people who speed to the front of the line only to then cut in at the last minute. This is a recipe for road rage and not a good example of risk reducing behavior.
3. Multi-lane roadways are more complex and present special challenges to a driver. In this environment, cars may travel side by side at the same speed or different speeds. You will need to monitor your speed so that you are not going too much faster than or too much slower than the other traffic around you. 5 mph less or more than the posted speed limit may impede the flow of traffic. On some multi-lane streets, lane direction may switch depending on the time of day. In the morning, to help facilitate traffic flow during morning rush hour, a lane may be directed as travel in one direction and the same lane in the afternoon may direct traffic flow in the other direction, when people are coming home from work. Shared left turn lanes are also a feature of multi-lane streets where traffic in both directions uses the same middle lane to turn left from. Be careful not to drive for too long in a shared left turn lane. Move into your lane and out of the left turn lane as soon as safely possible. At intersections, vehicles may be permitted to turn left from several lanes. Be sure you stay in your lane and turn only when completely safe to do so. Lane markings at intersections will help you know which lane or lanes are available for your car to travel into. Also, at intersections, be sure you plan ahead and do not get trapped in the middle of the intersection causing a lane blockage should your direction turn to a red light. Always plan and stop ahead of the intersection and cross over to the other side only when your entire car can fit without any part of it being in the intersection and potentially blocking traffic.

In low-risk environments, while there are lower speeds and less risk, there may be more things for you to attend and react to. Your line of sight may often be obstructed by buildings, parked cars, trees, shrubs, billboards and any other objects found in city or suburban environments. You must also be on the lookout for special areas that may contain school buses at certain times of the day, school zones where there are likely to be children and the speed limit is lower and strictly enforced, and other areas where traffic flow might be heavier or change rapidly in the blink of an eye such as parks and recreation centers.

## Intersections

Let's revisit intersections again and take a more in-depth view of the different kinds you may encounter and how to maneuver your vehicle safely through a turn to the left or right. There are generally two kinds of intersections, the most common we will call traditional the other nontraditional. When you hear the word intersection, you probably think of two streets meeting and crossing where traffic takes turns going back and forth. These are typically what we refer to as traditional intersections and they are found on nearly every street in America.

## Right of Way

To fully understand how intersections work, you must understand and adhere to the laws of right of way. Right of way is a privilege granted you by other roadway users and it is not a God given right.

## The law states who must yield, not who goes first.

The fact must be that safety comes before right of way. Regardless of the rules, you must yield to avoid a collision.
 Failure to yield is the number one cause for crashes in Texas! It is not that important that you go first! Yield to fellow drivers on the roadway and, as they say in Texas, "Drive friendly".

## Video: Intersections (Click title to view video)

## Traditional Intersections

Intersections are either controlled by traffic signs and signals or uncontrolled, and the right of way principle applies to all drivers. If the intersection is controlled by signs or signals, you MUST obey them. Intersections with signs or signals usually mean that there is heavier traffic here and more risk of collision.


Intersections may or may not be controlled by a traffic signal or sign. In the picture, there is no stop sign, yield sign or traffic light telling cars when, where and how to go, so the drivers are responsible for using Right of Way principles to direct traffic flow. The grey car must wait for all traffic coming toward him to pass before proceeding. If it is clear or if the oncoming traffic is far away enough for the grey car to safely cross, then he may proceed turning across oncoming traffic.


In the next example, which vehicle should yield the right of way? The grey car must yield to all traffic coming from his left and right because the blue and green car are already in or close to the intersection. The grey car must yield and wait for them to pass before proceeding, and then only if it safe and clear to do so. Safety comes before right of way. Even in a situation when you have the right of way, you must first make sure the other driver is going to yield before proceeding.


Some intersections are comprised of a crossing of a lesser road or lanes with a greater road or lanes. In the picture you can see a 4-lane road intersecting with a 2-lane road with no traffic signs or signals to alert drivers of what to do. The pink car must yield to the blue car because it is on the lesser roadway with only 2 lanes. Traffic on the four-lane road has the right of way.

An intersection could be a crossing of two roads with different surfaces, such as a gravel or dirt road with a paved road. Here the grey car on the dirt road must yield to the pink car on the paved road because vehicles on the improved road have the right of way.


This kind of intersection could be one road intersecting with another in only one direction, often called a T-intersection. Notice how one is controlled, by a stop sign, and one is not. In either case, the car that is entering the lanes of traffic must always give the right of way to those cars already in the intersection whether it is controlled or not. In other words, just because the grey car has a stop sign and came to a complete stop, does not mean he is free to enter into the intersection. The green car has the right of way and should not have to stop or change his path of travel for the grey car entering the intersection too early.


A crossing of a public road with a private road, often found in rural areas where people have a gravel or dirt road and sometimes even a paved private road that comes out to intersect a publicly traveled road. Private simply means it is for private use by the land owners and their guests. It is not meant for others to use to get from point A to point B and it is usually a one-way road into someone's private property.

Controlled Intersections are roadway crossings that have stop signs, yield signs, or traffic signals to control the flow of traffic by forcing all vehicles to take turns. Some intersections allow for traffic to turn left across oncoming traffic such as in the picture here:


When the grey car wants to turn left, several things will determine when he may do so.

1. He may turn left when he has a green protected left arrow traffic signal. He MUST however, make sure that there is no oncoming car entering the intersection first. It is his responsibility to ensure there are no vehicles coming before he enters the intersection. This is one of the most dangerous maneuvers you will make as a driver: turning left across traffic at an intersection. There is so much you must see and interpret: oncoming cars, pedestrians trying to cross the road at the same time as you, cyclists that may also be in the intersection, etc.
2. At other intersections, drivers will be given a green light but those wishing to turn left must yield to drivers going straight. The grey car above must yield to allow the blue car to travel straight through the intersection before he may turn left across traffic.
3. In some intersections, the grey car will have a yellow left arrow traffic signal telling him to yield to all oncoming traffic as they will have a green light. The grey car may go when it is safe and clear to do so.

In the case of a green light or a flashing yellow arrow, the grey car may pull out into the intersection slightly to get a bit of a head start on the left turn. He must however keep his wheels straight so that if he were hit from behind, he would continue straight down the road and not be pushed or veer into oncoming traffic. The driver of the grey car must also make sure that the lane he is turning into is clear and has room for him to proceed. Failure to do so may result in his car being stuck in the middle of the intersection causing other traffic to be blocked.

## Video: Controlled Intersections (Click title to view video)

## Turning

Turning your vehicle to the left or right takes special skill and plenty of practice to obtain the skills to do it smoothly and safely, especially when there is heavy traffic and a lot of cars around you taking up space on the roadway. You must use appropriate spatial judgement, control your speed, and steer with skill. Before making a turn consider the following:

What type of turn are you going to make? Left, or Right?
Is there a shared left turn lane?

Will other traffic be stopped behind you as you wait to make a safe left turn?

What kind of vehicle is behind you? Do you need to signal early to give extra time for a large truck to slow down and allow you to turn left?

Communicate with other drivers that you intend to turn by using your turn signal.


Plan your steering to predict how much you are going to have to turn the wheel, is it a sharp right turn? Only a slight curve to the left, or right?

Decide on the correct speed for the turn you are making. Right turns typically require more of a slowdown than left turns, especially when there is no oncoming traffic.

Look ahead and determine the best path of travel for your vehicle to safely maneuver the turn. We will talk about which lane to enter shortly.

Texas law requires you to signal your intent to turn at least 100 feet before making your turn. It is recommended that you signal as soon as you can without causing confusion about where you want to turn, usually about 150-200 feet before you turn. Confusion comes when you signal too
early and there is another cross street or driveway between you and the street you wish $t$ turn on. Be aware of other drivers and signal when it is appropriate and gives the information you intend to give.

Once you know you will be turning, enter the proper lane. Some intersections, especially those with heavier traffic, will have pavement markings helping you to get in to the correct lane. Some roadways have a dedicated left turn lane or a shared left turn lane. As you approach an intersection a shared left turn lane will often become a dedicated left turn lane and then may switch back after the intersection. If you are turning left and there is a dedicated left turn lane you must use it to allow through traffic to continue to proceed through the intersection. Always look behind you as other drivers may enter the turn lane too far back and may impede your entry. Slow down and let them pass before entering the lane. If there is no dedicated left turn lane then use the left most lane and be sure to signal your intentions so that traffic behind you know what you are going to do. They may be going straight and will want to change to the right lane to go around you if possible.

## LEFT TURNS

Steps for making a left turn:

1. Yield! Yield! Yield! Safety comes before right
 of way every time!
2. Signal lights will indicate when it is your turn to proceed.

3. Enter the intersection as explained before and wait until it is clear and safe to proceed across oncoming traffic.
4. Remember to avoid gridlock by turning into the intersection too far and then blocking traffic because you cannot complete you left turn because the lane you are entering is full of other vehicles. Notice the truck on the left. The cars waiting to turn left must wait until he has cleared the corner before making a left turn. If they don't wait, they will end up in the middle of the intersection and block oncoming traffic.

Special risks of shared turn lanes:
*Used to turn left in both directions. Is there an oncoming vehicle about to enter ahead of you?
*Used by vehicles pulling out into heavy traffic. Vehicles may turn into the left turn lane and wait for a gap in traffic before joining traffic flow. Is there another car entering from either the left or right from a driveway, alley or side street?
*Traffic can enter the lane from various directions and you must check everywhere before entering this lane. Look behind you--did another car enter the turn lane before you and is now passing you?


YIELD THE RIGHT OF WAY TO ANY VEHICLE ALREADY IN OR SIGNALING TO GET INTHE SHARED LEFT TURN LANE!

NEVER DRIVE FOR LONG DISTANCES IN THE SHARED LEFT TURN LANE. 200-300 FEET MAX IS RECOMMENDED. IF NECESSARY, STOP AND WAIT FOR A GAP IN TRAFFIC BEFORE PROCEEDING.


There will be times when you are the car needing to pull out of a driveway or cross street turning to the left into busier lanes of traffic. The shared left turn lane may be used to help you get across traffic so that you can more easily enter the flow in the direction you wish to travel. Here are a few tips
for making this maneuver:
*You are crossing lanes of traffic as you maneuver into the left turn lane. Check for traffic coming from your left and for any other cars already in the turn lane wanting to make their own left turn. They will be in your way and you must wait for them to turn before proceeding into the turn lane. Notice the blue car making a left turn out of a driveway trying to enter the shared left turn lane. There is already a gold car in the shared lane who will be in his way as he enters the shared lane. In the picture above, the orange car coming from the left is making a right turn in this case, but could just as easily have pulled into the shared left lane
 to make a left turn. The blue car must be aware of all of these drivers before making his turn.
*There will also be cars coming from the right that may enter the shared lane because they are wanting to turn left as well. Wait and make sure it is clear before entering the shared left turn lane.
*Wait for a safe gap in traffic coming from your left. If you can, and there is a large enough gap in both directions, go ahead and pull into the nearest through lane without stopping in the shared lane. If traffic is heavy in the direction you wish to go but clear for you to cross your side of traffic, then go ahead and pull into the shared lane and stop. Once you are in the shared lane, check for a safe gap in traffic, signal a lane change to the right, and when safe and clear enough to do so, merge into the traffic flow proceeding into the nearest lane.

Intersections: High Risk
Intersections present a specific level of risk and must be treated differently. Many busier roadways will have a dedicated left turn lane or two lanes where the left lane may be used to turn left from. If this is the case always turn into the corresponding lane on the new roadway you are
entering. If you are in the inside lane, stay in the inside lane. If you are in the outside lane, stay in the outside lane. Try not lane hop or drift into the other lane. To avoid this risk, try to turn before or right after a car passes on the new roadway you are entering. Try not to pull alongside the vehicle in the other lane, but rather follow their tail end.

Video: Left Turns (click title to view video)

## Right Turns

Right turns at either controlled or uncontrolled intersections require much of the same careful observation skills as left turns. Always yield to other roadway users already in or near the intersection you are trying to enter. Come to a complete and full stop at a stop sign, look and look again for pedestrians, cyclists, and other cars before starting your right turn. Be careful of other drivers who may enter the intersection after you have begun your right turn.

## Stop/Yield/Look/Turn



Just like when you are turning left, it is equally important when turning right to be sure to turn into the corresponding lane of the roadway you are entering. If you are turning onto a road with more than one lane in your direction, avoid lane hopping by entering the far lane. Stay in your lane and try not to drift or turn directly alongside another car that is traveling through the intersection in the outer lane. Wait for them to pass before proceeding into your right turn. We call that "following their tail".

Some streets may have multiple right turn lanes. This is rare; however, they function just like multiple left turn lanes. Stay in your lane, and turn into the same lane as the one you started in. Be aware of other vehicles drifting into your lane as they turn and as always, avoid turning at the exact same time, turn before or after other cars whenever possible.


Texas allows drivers to make a right turn at a red light unless prohibited by signs that read "No Turn on Red". Before turning, you MUST come to a complete STOP before proceeding with your turn. Always yield to other roadway users already in your path of travel, ie: pedestrians, other cars, bicycles, etc. Many beginner drivers fail to come to a complete stop before making the right turn on red. This mistake may cause you to fail your driving test. Practice this and make it a habit!


FIRST!!!! Then turn on red if allowed.


## Video: Right turns at intersections (click title to view video)

Roundabouts or Traffic Circles

These types of intersections are not very common but can be very confusing for a beginner driver. When entering a traffic circle, you must reduce your speed and follow the yield principle. You must always yield to any cars already in the circle and you may only enter the flow of traffic when it is clear and safe to do so. Always signal your intentions and get into the correct lane when you are ready to exit the circle. The purpose of roundabouts is to reduce congestion, keep traffic moving and to minimize traffic at the intersection of two or more roads. Here is what makes them work:


1. Crosswalks are found before you enter the roundabout to help keep pedestrians safer and out of the intersections.
2. You will enter the roundabout at an angle to the right forcing you and other traffic to slow down.
3. You may only exit the roundabout to the right taking away the danger of cross traffic.
4. Roundabouts reduce the severity of collisions, reduce gas consumption, and reduce air pollution because vehicles do not have to stop and idle for long periods of time.

## Video: Roundabouts (Click to view video)

## Right of Way

Objective: The student will recognize the importance of yielding right of way in a variety of situations they may encounter on the roadway.

## Video: Right of Way (Click to view video)

## Special Situations \& Right of Way

## Emergency Vehicles

The category of emergency vehicles has grown recently to include: police cars, ambulances, fire trucks, and often tow trucks. Basically, any vehicle with a siren, bell or flashing red lights is considered an emergency vehicle. You may have even seen messages about making way for tow trucks and other vehicles responding to accidents.

When confronted by this type of moving emergency vehicle approaching from behind you, you are required by law to move to the right side of the road and stop. At times, traffic may be congested and movement will be difficult. In this case, move over as far as you can and slow down to try and clear a path for the emergency vehicle. DO NOT follow a moving fire truck or ambulance responding to an emergency. Stay back at least 500 feet and do not drive into or park where the emergency is occurring. Do not park or enter where your car may interfere with the emergency vehicle's ability to access the emergency. Make sure fire trucks and ambulances can exit the scene with ease.

In Texas, we have a specific law called the Move Over Law. You read about that earlier in the course.

Remember: drivers who come in contact with a stopped emergency vehicle with lights flashing must either slow down or move over. If you are on a roadway with more than one lane, you should move over out of the lane next to the stopped emergency vehicle. If you cannot change lanes or the road is only one lane in your direction, you must slow down to 20 miles per hour below the posted speed limit. For example, if the posted speed limit is 30 mph , then you must slow your vehicle to 10 mph as you pass the stopped emergency vehicle. If you approach the scene of an accident already in progress, reduce your speed and be prepared to stop. If you do not have to stop, continue on your way...do not cause problems because you are curious or want to watch.


## School Buses

School buses carry our most precious cargo...children. Always approach a school bus with extra care and vigilance. A school bus could stop at any time to let children off or on. There are two situations to consider when you come in contact with a school bus from either direction.

Scenario 1: If the roadway you are traveling on $\boldsymbol{I} \boldsymbol{S}$ divided by a physical barrier such as a grassy or concrete median, you are not required to stop for a bus with flashing lights. You should however always proceed with caution.

Scenario 2: If the roadway you are traveling on $\boldsymbol{I S}$ NOT divided, you MUST stop before you reach a bus with flashing red lights and you must not pass until the bus has turned off its lights and started down the road again. You may also proceed if the driver of the bus motions you to go ahead, but you should always do so with the utmost caution as there may be children near.


## Funeral Processions

When encountering a funeral procession, you should show the utmost respect for the family of the deceased by keeping clear of the cars in a line that form the group attending a funeral, called a procession. You should not drive your vehicle between any cars in the line. You can tell which cars are in the line because they will all have their headlights on and hazard lights flashing. Some processions will even have police escorts. You should stop and wait for the entire line of cars to pass before proceeding.

## Pedestrians



People on foot are among the most vulnerable roadway users. Keep in mind that many of the people on foot have never driven a car (children) and may not understand the limitations, such as stopping distance, that a motorized vehicle requires. This causes them to take chances and they do not understand how hard it is to see them at times. Other problems occur when pedestrians cross at other places other than crosswalks. They may also be distracted or inattentive as they are walking. Neighborhoods are places that require drivers to take extra care to look out for prepare for unexpected people in the roadway. Children
playing, delivery persons, mail carriers, trash collectors, and others may enter your path at any time. Weather also can influence how people who are walking act. When it is raining, they may take extra chances to cross a street quickly to get out of the rain. Leave space and time and look twice for pedestrians. A moving vehicle weighs many tons and becomes a deadly weapon for people on foot. People use crosswalks at intersections which are already high-risk situations with a lot of traffic and things to watch for. Driver of motorized vehicles must yield to pedestrians when they are trying to cross the road. Once they have stepped foot into the roadway motorists must stop and let them cross. Many intersections are controlled and offer walk / do not walk signals for pedestrians. If a pedestrian has a WALK signal, you MUST yield. If there is not pedestrian control signal, and the light turns green, you must yield to the pedestrian and let them cross before proceeding.

The basic rule is: ALWAYS YIELD TO PEDESTRIANS! IT IS NOT A CONTEST!

## Changing Lanes

Changing lanes in low-risk environments simply means you are wanting to move your vehicle either to the left or to the right and usually requires you to make a change in your speed. Since you are the one wanting to initiate this change in position in the roadway, it is your responsibility to signal and let other roadway users know what you plan to do well in advance actually making the move.

Before changing lanes ask yourself:
 the same lane as I want to move into?

Q: Is there a car approaching from behind me that might quickly fill the gap I want to move into?

Things to consider when changing lanes:
-- Do you need to change lanes? If your lane is clear and you are traveling the speed limit, there is really no need to make a change. Continue on your way in the lane you are in.
--Is there an adequate gap? Make sure there is enough room for you to maneuver your vehicle into a different lane.

--Courtesy and communication are the very important. Signal your intentions to other roadway users before attempting a lane change.
--Make sure you are aware of your speed and all traffic to the rear and sides of your car.
--Control your speed and steering and move over smoothly to establish your position in the new lane, check for all traffic to the rear and sides of your car now that you are in a different lane. Adjust your speed to create space areas.

As covered previously, when making a lane change use OSMOG:

Check OVER your shoulder to make sure no one is in your blind spot.
SIGNAL your intention to move to the left or right into another lane.
Check your MIRRORS to the rear, left and right.
Check OVER your shoulder again to make sure your blind areas are clear.
When you are sure it is safe and clear to do so, GO and move your vehicle into the new lane. Once you reach the new lane, turn off your turn signal, check your speed and position in the lane and in relation to other cars in traffic.

Common Errors:
Failure to use turn signal and communicating to other drivers.
Slowing down too much before or after proceeding into the new lane.
Moving into the new lane but too close to the vehicle ahead of you, unsafe space area.

## Video: Changing Lanes \& Turning

## Moving Forward

When your car is traveling forward, you must be aware of what is happening around your car in all directions. This takes careful and constant observation. You as the driver must be aware of possible lane blockages and identify the best lane to be in to avoid conflict. Position yourself well in advance of the conflict by looking down the roadway 20-30 seconds ahead in your path of travel. This will give you the time to choose the best lane to be in and make a lane change if needed. You should try to place your vehicle so that a search of about 20-30 seconds ahead will allow you to do a visual check of an approaching intersection and determine if you will be able to clear it without conflict.

Special attention must be given to a green light that has been green for a while and you are approaching. A light that has been green for some time is called stale green light and will most likely turn to yellow and then red very soon. You can predict and prepare for this by taking your foot off the gas and covering the brake in preparation for braking and then stopping when the light changes.

It is important that you drive at the same rate of speed as the traffic around you without exceeding the speed limit. Create safe space distances and adjust your speed to that of the other
traffic around you. It is not safe to go to slow either. As a beginning driver, do not try to drive on roads that have a speed limit higher than you are comfortable with. Going too slowly is almost as dangerous as going too fast and can disrupt the flow of traffic.

## Uncontrolled Intersections

Many of the intersections you will encounter will be uncontrolled by any sign or signal and may only be a cross street to the one you are traveling on. These require you to check carefully for oncoming vehicles, pedestrians in crosswalks, cyclists and cross traffic that may want to enter or who are already entering your roadway and path of travel. Look for the signs that they are making a move, such as tire movement, signals, and head direction.

## Always be ready and expect the unexpected.

## Intersections with Signals

You must always be ready for a vehicle that enters the intersection even though they are not supposed to. Scan the intersection in all directions to avoid a possible collision with an evasive maneuver. Learn to count to 3 before entering the intersection no matter how far back in the line of cars you are. You never know when someone may enter the intersection unexpectedly. This amount of buffer space will also help if a car in front of you suddenly has to stop unexpectedly.

## Stop signs \& Yield signs

Entering or crossing a street controlled by a stop sign or yield sign requires you to judge the amount of space you have before you risk entering the intersection in front of an approaching vehicle. Judging the time and space it takes to cross takes practice and experience.

## Mirror Usage

While your vehicle is moving, it is critical that you keep your eyes to the front of your vehicle. Equally important is keeping an eye on what is happening around your vehicle especially to the rear. However, you must make sure that your glances into your mirrors are quick and frequent, not long looks for details. When you make your glances, gather information about the location, size, and speed of the vehicles around you.

Ask yourself these questions:

1. Are there vehicles there?
2. Where are they located?
3. How fast are they traveling?

## Stopping



When preparing to stop, you must be aware of what is happening behind you as much as you are aware of what's happening in front of you. Before applying the brake pedal, check your rearview mirror and tap the brake pedal lightly to flash the brake lights. This will let drivers behind you know that you intend to stop. Once you have determined that the vehicles behind you are aware, go ahead and apply the break stopping at least one car length from the stop line or from a car that is stopped in front of you. You should stop far enough away from the car in front of you so that you can see both back tires. This will allow you to get around the car should you need to. Be sure to continue to pay attention to your rearview mirror. If you notice a vehicle is coming up from behind the traveling too quickly to stop in time you might be able to move out of the lane into the lane next to you. Once you are sure the vehicles behind you are going to be able to stop, you can ease off the brake pedal and move forward to the appropriate place at the stop line but continue to leave a safe distance between you and any other vehicles in front of you.

## Staggered Stop

When your vehicle is positioned in the left-hand lane, and you are the first one at the intersection, it is useful to stop a car length before the stop line to maintain some space in front of your vehicle. By doing so, you reduce or eliminate the possibility of a vehicle turning left from the cross street to the right side swiping the front of your vehicle.

## Judging Time \& Space



As a beginner driver, one of the most difficult things for you to judge will be the amount of time or space needed to enter into an intersection and travel through it safely and successfully. Judging the length of the gap in traffic that is needed to enter, to cross, or to join traffic safely takes time and practice to master. For this reason, intersections are particularly dangerous for beginner drivers. You must take into consideration:
--the width of the roadway
--the time it will take you to perform the maneuver
--the speed of the traffic around you

Let's look at a few examples.


Let's say you are attempting to cross a two-lane roadway like the blue car in the picture. A vehicle traveling toward you, like the purple car, from a cross street at 30 miles an hour will travel about 264 feet. The same vehicle traveling at 60 miles an hour will travel 528 feet. You must take into consideration how quickly an approaching vehicle is traveling toward you as well as the distance you are attempting to cross. The faster another car is approaching the intersection will determine how big of a gap you will need to leave and if you should wait until they pass to enter into the intersection.

In the picture above, let's say you are the blue car and want to make a right turn. Vehicles approaching from your left, like the black car must be given ample space when you decide to make your turn. You must judge how quickly they are approaching and how large of a gap will need to leave. A driver approaching from your left traveling at 30 miles an hour will require a gap of eight or more seconds so that you can complete your turn without impeding their path of travel. In contrast, a vehicle traveling at 55 mph would require a gap of 11 or more seconds. Knowing the size of gap to leave takes practice.


Let's say you are car \#1 attempting a left turn. This particular maneuver is more complex and more dangerous. There is much for you to pay attention to when attempting a left turn. Traffic coming at you from the left will require you to judge a gap of about three to 4 seconds in order to cross the first part of the intersection safely. Then you must also attend to traffic coming at you from the right and allow yourself a larger gap in order to enter the lane, speed up to the same speed of traffic, and leave any vehicle approaching you from the rear safe following distance. If the intersection you are crossing is onto a divided roadway, it may be necessary for you to cross the first lanes of traffic and then stop in the divided portion, wait and establish a safe gap before you continue your left turn to join the flow of traffic. When crossing or joining traffic that is traveling at a high rate of speed, it is important to realize that the risk increases substantially and you must also increase the gap or space given to other motorists.

## Curves

Driving through curves presents unique levels of risk because your sight is often restricted or limited. There will be parts of the curve where you will not be able to see oncoming traffic and they will not be able to see you. Oncoming vehicles may cross the center line and you must be ready to react if this happens. For these reasons it is very important to search as far ahead as possible give yourself as much time as possible to evaluate and control the level of risk. You must decide on the best speed and lane placement as you travel through the curve.

As you approach the curve ask yourself:


Is the curve to the left or to the right?
How sharp is the curve? Is the road flat or banked?
What are the traffic conditions?
What is the posted speed limit and the suggested speed limit?
Is there a shoulder?

How wide is the lane?


As you begin to approach the curve (1), you will want to reduce your speed by taking your foot off the accelerator, notice the orange sections in the picture. It is always safer to enter a curve more slowly and accelerate if necessary. If you enter the curve to quickly, there is a higher risk of losing control of the vehicle.

If you are making a curve to the left, position your vehicle in the right-hand part of your lane, closest to the shoulder or edge of the roadway.

If you are making a curve to the right, position your feet vehicle in the left him part of your lane, closest to the shoulder or edge of the roadway.

As you begin to enter the curve you will want to put slight pressure on the accelerator in order to give you the best traction possible (3), notice the light green indicating slight acceleration. As you pass the middle of the curve (4), you can begin to target your way straight ahead getting ready to exit the curve. You will want to continue to accelerate, notice the bright green area exiting the curve, and unwind the steering wheel so that
you are once again steering straight out of the curve. At this point you may return to your original speed and move your vehicle back to the center.

Deciding to pass another vehicle on the roadway is one of the most dangerous driving tasks you will ever encounter. Before deciding to pass another vehicle, you must first decide whether it is legal and makes sense to do so and evaluate all things that might influence your decision, such as road conditions, traffic, weather.

The decision to pass another vehicle should also be made keeping in mind if passing is legal, how well you can see ahead of you down the roadway, and always carefully evaluating if passing is a good idea. It is equally important that you take your time in deciding whether to pass or not. It is always best to err on the side of caution and not make an impatient or quick decision that may lead to an unsafe maneuver.

Once you have decided to pass, you must understand that any vehicle coming toward you will be closing the gap very quickly. Once you have decided to pass another vehicle you must always keep in mind the "worst case scenario" and always prepare a way out and be ready if
 passing suddenly becomes unsafe.

Using your SIPDE skills, you must first search and identify any possible hazards that would make passing unsafe. These might include checking pavement lines to determine if passing is legal, any signage indicating that passing is not allowed, check to see if you are on a hill, approaching a curve or an intersection, bridge, or railroad tracks. Be sure you scan the space areas around your vehicle looking for other vehicles around you, or coming at you. Check your mirrors and look over your shoulder to determine if there are any vehicles in your blind spot that may have already begun to pass or are about to pass as well. Sometimes a vehicle behind you will decide to pass the slow-moving vehicle in front of you and begin its maneuver before you begin yours. This will require you to wait, be patient, and begin the process again until it is your turn to safely pass a slow-moving vehicle.

Once you have decided it is safe to pass, activate your turn signal so that other drivers know your intention to pass. Begin to accelerate, re-check your space areas, and blind spots.

Once you are sure it is safe and clear to pass, steer into the passing lane to the left. Be sure the car you are passing is aware of your position and fully occupy the passing lane. Maintain your speed and be sure not to exceed the speed limit as you pass the slow-moving vehicle. Continuously check your rear-view mirror, oncoming traffic, and always be ready to abort your pass if it becomes necessary to do so. Check your rear-view mirror and once you have passed the vehicle and can see both of its front tires, activate your right turn signal, check over your shoulder to the right and steer back into the right lane. Turn off your signal.

You should never pass more than one vehicle at a time. Pass one and move back into the right lane and begin the process again if you need to pass another slow-moving vehicle.

There are times when it is best not to attempt a passing maneuver.

- If the vehicle ahead of you is driving at or only slightly slower than the speed limit it is not advised that you make a passing maneuver because the distance it will take you to pass him is far too great.
- If your line of sight is limited for any reason you cannot see down the road clearly enough it is advised that you do not pass. This is especially true on a curved or hilly road.
- If traffic is heavy and there are many cars in front of the slow-moving car you wish to pass, it is advised that you do not attempt a passing maneuver. Too many vehicles in a line may not afford you a gap large enough to return to the right lane. Additionally, when there are many vehicles in a long line, one of them may decide to stop or turn unexpectedly and this may impede your ability to return to the right-hand lane.

Reducing the risk when attempting to pass a vehicle is solely up to you. You must decide if it is safe and wise to make a passing maneuver. You must always keep in mind "what will I do if I suddenly cannot pass?" You must always keep in mind an "out" such as driving onto the shoulder, off the road, or simply braking and moving back behind a slow moving vehicle.

## A head on collision must be avoided no matter what.

There are times when passing is prohibited. When traveling on a two-lane road you may not pass another vehicle on the left unless it is clear and free of oncoming traffic and you have plenty of distance to pass safely. Keep these items in mind when deciding if passing is legal:

- A solid yellow line on the pavement indicates a no passing zone. Passing is illegal in these areas.
- If you see any no passing signage posted in the area, then passing is illegal.
- When you are approaching a hill or a curve where your view of oncoming traffic is restricted, passing is illegal
- You may not pass within 100 feet of a bridge, tunnel, or railroad tracks.
- Passing is illegal if oncoming traffic is too close or if you cannot see the roadway ahead of you clearly.



Broken line and solid line-you may pass only when it is safe and the broken line is on your side


Double solid line no passing allowed

## Passing on the Right

There will be times when passing on either side of a vehicle is permitted. If you were traveling on a one-way multiple lane road or a divided highway you may find yourself in a position of passing a vehicle on the right-hand side. You should use extreme caution when attempting this, as the driver will usually not expect a vehicle to pass them on the right and may not check their blind spot properly.

It is legal to pass a vehicle that is waiting to make a left-hand turn. You may pass on the right in this situation as long as you can safely make the passing maneuver without leaving the pavement. Crossing the white line that marks the right edge of the road way onto the shoulder, even if the shoulder is paved, is illegal. The shoulder is not considered a lane and therefore cannot be used when trying to go around a vehicle on the right.

## Being Passed

When you are faced with another vehicle trying to pass you, you also have a responsibility to cooperate and facilitate their attempt to pass you. Do not increase your speed as you are being passed. Also keep in mind any way that you can facilitate by being ready to decelerate and giving them a "out". Your safety as well as the safety of other roadway users depends on you and you must allow the passing vehicle to either abort or to execute his maneuver safely.

## Reduced Risk Driving

As a beginner driver reducing risk is particularly important but also a bit overwhelming. As you spend more time behind the wheel, many of the risk reduction techniques covered in this module will become automatic for you.

To review, here are a few things you can do to reduce risk in any driving environment.
Make a point to know and understand Texas traffic laws.
Always be prepared to drive, and make sure you are focused on the driving task.
Be aware of and use all occupant protection that your vehicle offers.
Always apply the SIPDE system to help you to search and evaluate the space areas around your vehicle, and target your path of travel.
Manage and limit distractions each and every time you drive.

## Day 8 Make Up Quiz

You must take and pass the quiz with a $70 \%$ or better to receive credit for the day.

