

Owning, Insuring, and Maintaining a Vehicle

## **Session Goals**

1. Students will know their responsibilities for keeping their vehicle in proper working order and insured.

# **Key Vocabulary and Topics**

- Power Steering Fluid
- Washer Fluid
- Coolant
- Radiator Cap
- Brake Fluid
- Oil Change
- Air Filter
- Hood Latch
- Tire Pressure
  - Overinflated
  - Underinflated
- Windshield Wipers
- Battery

- Battery Terminals
- Leasing
- Depreciation
- Car Insurance
- Policy
- Premium
- Deductible
- Collision Insurance
- Comprehensive Insurance
- Monthly Driving Costs
- Preventative Maintenance
- Basic Auto Maintenance

# What Goes Into Owning and Maintaining a Motor Vehicle?

# Buying a Vehicle

Considerations When Purchasing a Vehicle:

- Purchase price
- Depreciation
- Financing
- New/Used/Leased
- Vehicle size
- Engine size and types
- Transmission (manual/automatic)
- Optional Equipment

## **Leasing Vehicle Considerations**

- Responsible for monthly payments and maintenance.
- It is always a new vehicle.
- You have a lease contract which expires.
- At the end of the lease, you can return the vehicle and lease another, purchase the vehicle at a cost determined at the start of your lease, or return the vehicle with no obligation.
- Leasing limits how many miles you can put on a vehicle. Extra miles cost an additional charge.
- Insurance premiums may be higher, as the car will need to be "fully insured".
- There may be restrictions on the vehicle.

## New vs. Used Vehicle

What factors should you consider when buying a new or used vehicle?

• New versus used vehicle "calculator" resources available online

# Owning and Maintaining a Vehicle Learning Activity

1. With a partner, research a vehicle you would like to buy

2. Next, use an auto loan calculator to determine your monthly payments at 4% interest (approximate)

3. Keep these calculations handy...

# Purchasing a Used Vehicle

- Consider how much you can afford
- Research value of vehicle
- Besides looking good, make sure the vehicle is in good working mechanical condition
- Determine whether it was involved in a collision or needs repairs
- If possible, talk to the previous owner about the condition and maintenance done on the vehicle
- Research interest on car loans (compare banks)

## What to Check

- Check the doors and locks
- Vehicle appearance
- Fluid leaks
- Evidence of collision damage
- Sit in the vehicle and check seats for comfort and condition
- Make sure lights and accessories work
- Look at the mileage (odometer)
- Can you reach the pedals and steering wheel?
- Can you adequately see out the rear window over the seats?

## What to Check

- Check the trunk for evidence of rot/damage
- Check to ensure if there is an inflated, good spare tire
- Is there a tire jack?
- Under the hood check for signs of collision damage, hoses and radiator leaks, cracks in hoses and belts, coolant level and battery/battery cables.
- Take a test drive and listen for sounds, test the brakes, ensure firm steering, good suspension, note hesitations when accelerating
- Have the vehicle inspected by a mechanic

# Driving Costs - 2019

Vehicles vary widely in the cost to operate and maintain them. Search for a couple of different vehicles to find out the following for the latest model year.

Type of Car	Tax Incentive?	Average insurance premium	Maintenance	Repairs	Depreciation	Fuel Cost	True Cost to Own
Toyota Prius							
Mini Cooper							
Chevy Malibu							
Ford F150							

# Vehicle Ownership

#### **Certificate of Title**

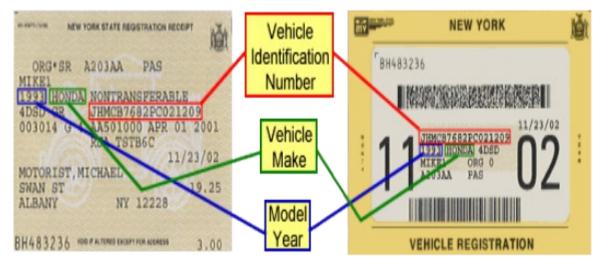
Shows proof of ownership and will include:

- The owner's name and address
- The vehicle identification number (VIN)
- The odometer reading upon purchase
- Weight class
- If the owner has purchased the vehicle on a time-payment plan (loan), the title also will indicate that there is a lien (debt owned) on the vehicle.

This document should not be stored in your vehicle!

## Registration

- All vehicles, trailers, and boats must be registered in New York
- Registration costs very based on the vehicle



New York State Department of Motor Vehicles. Sample Registration. https://dmv.ny.gov/registration/sample-registration-documents

## New York State Inspection

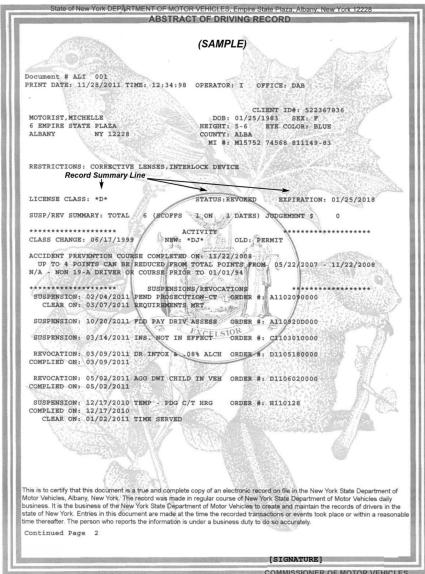
- New York requires all vehicles to be inspected yearly at a cost of \$15.00 for most cars
- New York State WILL NOT send you a reminder
- The color of the sticker changes annually
- Things that will cause you to fail inspection:
  - Cracked or discolored mirrors
  - Deteriorated windshield wipers
  - Check engine or service engine soon light is on
  - Failing brakes
  - Bad frame, suspension, steering, and wheel fasteners
  - Bald tires
  - Incorrect window tint
  - Some lights not working
  - Fuel leaks

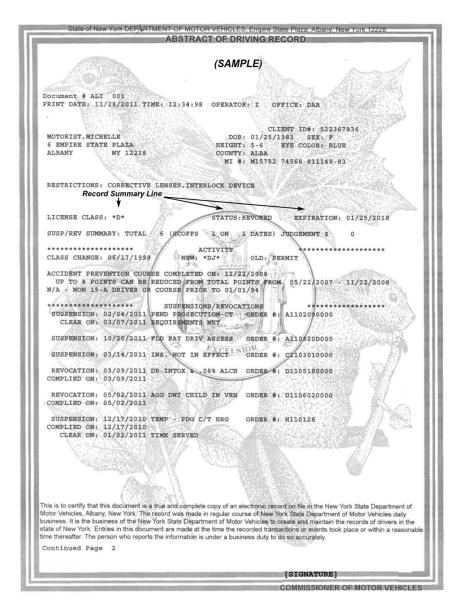
#### What Determines Insurance Rates?

- Driving record (Driver's abstract)
- Age
- Miles driven
- Driver gender
- Marital status
- Type of vehicle
- Where the driver lives and drives

- Driver's claim record
- Driver education programs taken
- Years of driving experience
- Credit history
- Previous insurance coverage
- Coverage and deductibles

# Sample of a Driver Abstract





# What Do the Coverages Mean?

Kind of Insurance	Coverage	Claim Includes	Minimum Amount	Notes
Personal Injury Protection (PIP)	Medical, loss of income, and other miscellaneous expenses	<ul> <li>Medical expenses</li> <li>Loss of income: Max of \$2000 a month or 80% of current monthly income</li> <li>\$25 per day for reasonable expenses</li> <li>\$2000 death benefit</li> </ul>	\$50,000/Most common is \$50.000	Required by law Also known as "No Fault Insurance"
Bodily Injury Liability	Pays claim against owner if someone is killed or injured and owner is at fault	Hospital and doctor bills, Legal fees; Court costs; Loss of wages	\$25,000/\$50,000 \$25,000 per person and \$50,000 per crash in bodily injury benefits	Required by law Most Common is \$300,000
Property Damage Liability	Pays claim against owner if property of others is damaged and owner is at fault	Other car and possessions in vehicle. Damage to house, telephone pole and traffic light.	\$10,000	Required by law

# What Do the Coverages Mean?

Kind of Insurance	Coverage	Claim Includes	Minimum Amount	Notes
Statutory Uninsured Motorist	Pays for injuries sustained by you and your passengers caused by an uninsured motorist	You and passenger injuries	<ul> <li>\$25,000 per person and \$50,000 per accident for those accident for those that occur WITHIN NYS.</li> <li>Serves as supplementary insurance if outside of NYS</li> </ul>	Required by law
Optional Basic Economic Loss (OBEL)	This coverage provides an extra amount on top of the no-fault limit			Not Required Most common is \$25,000
Supplementary Uninsured Motorist	Extends coverage to accidents that occur outside of New York State			Not Required \$50,000 is most common

# What Do the Coverages Mean?

Kind of Insurance	Coverage	Claim Includes	Minimum Amount	Notes
Medical Payments	Coverage that reimburses you and your passengers for medical or funeral expenses stemming from an accident, regardless of responsibilities			Not Required \$5,000 is most common
Collision	Reimburses you for damage to your own car resulting from impact with another car or an object			Not Required Most common is \$500 deductible
Comprehensive	Reimburses you for damage to your auto not caused by a collision			Not Required \$200 deductible is most common

# Owning and Maintaining a Vehicle Learning Activity

- 1. You and your partner decided to buy a used or new vehicle, research your vehicle's mpg.
- 2. You calculated an auto loan at 4% (since you're young and may have limited credit).
- 3. You kept your calculations handy...
- 4. Using your previous calculations, use an insurance company website to determine which type of coverage is best for you. Keep in mind that you'll have to meet the NYS insurance minimum on the previous slide.
- 5. Finally, use an online insurance estimator to get quotes.
- 6. Create a table like the one on the next slide to share your results.

# Owning and Maintaining a Vehicle: Results Example

Car	New/U sed?	Purchase Price?	Monthly Auto Payment (Based on Purchase Price at 4%+)	Estimated Insurance? +	Gas per month (# of miles driven ÷ mpg* \$3/gallon) =	Total Monthly Cost	5 Year Cost to Own (from KBB)
2017 Audi A3	New	\$45,000	\$828.74 +	\$150 +	900/27 = 33.33 gallons * \$3 = <b>\$100</b>	\$1078.7 4	\$60,085

# You've Bought and Insured a Vehicle....

- NOW YOU HAVE TO MAINTAIN IT!
- New vehicles come with warranties based on years and miles driven and specific to the vehicle you have chosen
- Used vehicles may or may not have transferable warranties

#### Preventative Maintenance

What is preventative maintenance on a vehicle?

The care you routinely give your vehicle to avoid trouble later is preventative maintenance. This attention includes not only day-to-day care, but also the periodic servicing a vehicle needs at times listed in the owner's manual.

• Driving costs are affected by how well your vehicle runs. Performing regular maintenance can ensure more efficient operation and help prevent costly repairs down the road.

• Fluids: Engine oil, engine coolant, brake fluid, transmission fluid, and power steering fluid

 Gasoline: Use gasoline with the octane rating as recommended by the vehicle manufacturer (check vehicle owner's manual).

- Air filter: Captures dirt particles and ensures clean airflow to the engine. Inspect at every oil change. Located in the engine, as well as a cabin air filter.
- <u>Belts</u>: Most vehicles use a single serpentine belt to operate under-hood accessories such as the alternator, although v-belts are used in some applications. Inspect at every oil change.
- <u>Hoses</u>: Circulate vital liquids such as engine coolant, transmission fluid and power steering fluid. Inspect at every oil change.



- <u>Battery</u>: Powers the starter motor, acts as a voltage stabilizer for the electrical system and makes up any shortfall when the alternator cannot meet the vehicle's electrical demands. Inspect the battery cable connections at every oil change and clean as needed. Always wear eye protection and gloves when servicing a battery.
- <u>Tires</u>: As the only part of your vehicle in contact with the road, tires have a major effect on ride, handling, braking and safety. For the best performance, tires must have sufficient tread depth, no signs of physical damage, and be properly inflated. Inspect tires and check inflation pressures at least once a month.

 Driving for maximum fuel economy and minimal impact on the environment.

 By developing fuel saving driving habits, you can increase your fuel economy and decrease the impact on the environment throughout your driving career.

# Tips to Save Fuel

- Avoid long idling
- Use the fuel grade specified in your owner's manual
- Follow the preventative maintenance schedule in your owner's manual
- Eliminate unnecessary weight in the vehicle
- Maintain appropriate tire pressure (PSI)
- Use cruise control on highways
- Use AC sparingly and park in the shade
- Avoid aggressive driving
- Fleet Fuel incentive cards from retailers may offer a reduced fuel price

## **Tires**



It is important to maintain and replace tires when tread becomes worn or if the tire wall becomes damaged.

Proper PSI will save fuel AND improve the life of the tire.

- Tire pressure may change with changes in season and with wear, so check them often.
- Visually inspecting tires can reveal excessive and/or uneven wear due to poor tire alignment.
- Rotate tires every other oil change and ensure tires are aligned.

# Prevention is Key

- Always listen for new/different sounds your vehicle is making
- Look it over by noticing tire wear, vehicle leaning, and things hanging down under the vehicle
- What are other common items on the car that you will need to pay attention to?

## Prevention is Key

- Regular oil changes (4-6,000 miles)--check your owner's manual
- Transmission check-up at prescribed intervals (owner's manual)
- Battery maintenance
- Belts and hoses should be checked (pinch them and look for cracks)
- Brake and tire inspection/tire rotation/balance and alignment
- Regular windshield wiper replacement
- Spark plug replacement at prescribed intervals (owner's manual)
- Filters replaced (engine air filter, cabin air filter, oil filter, fuel filter) as needed
- Inspect shock absorbers at prescribed intervals per the owner's manual or as needed

# **Basic Maintenance Learning Activity**

Use the internet to briefly research basic maintenance activities and fill out the Basic Automotive Maintenance Worksheet. Be prepared to share what you learned with the class.

## References

 New York State Auto Coverage (NYCM). Automobile Insurance: Auto Coverage Guide.