



## OHIO BASIC RIDER SKILLS CURRICULUM REVIEW MODEL NATIONAL STANDARDS REFERENCE

The information contained in this document compares and references the Model National Standards for Entry-Level Motorcycle Rider Training to the \_\_\_\_\_ curriculum.

The first column in each table list the NHTSA Model National Standard for Entry-Level Motorcycle Rider Training, DOT HS811 503 8/2011.

The second column in each table, list the page (Pg.) number and the paragraph (p) number where the standard in the first column can be located in the rider guide. State volume number and printing year of rider guide

\_\_\_\_\_. Also submit an indexed to Model National Standard for Entry-Level Motorcycle Rider Training rider guide workbook.

The third column in each table identifies by time index where on-line training, if used, meets the national standard. Provide an indexed copy of the on-line training modules. State version and date of digital materials

The fourth column identifies the range exercise where the standard in the first column is taught. Subsequent range exercises may offer additional practice in some skills, Exercises are not referenced unless the primary exercise objective relates directly to the standard. Also submit an indexed to Model National Standard for Entry-Level Motorcycle Rider Training, range cards. State volume number and printing year of range cards \_\_\_\_\_.

In addition to materials listed above, all instructor teaching materials and instructor training materials must be provided.

### 1. MOTORCYCLE PRE-RIDE TASKS

1.1 The rider can identify and follows State laws, rules, and regulations pertaining to the operation of a motorcycle and equipment requirements.

Model National Standard	Rider's Guide Reference – Page and Paragraph	Digital Material Time Index Reference	Range Card Reference – Exercise Number(s)
1.1.1. Identifies State laws, rules, and regulations for the operation of a motorcycle and equipment requirements.			
1.1.2. Demonstrates compliance with State laws, rules, regulations, and equipment requirements.			

1.2 The rider can identify the mental and physical requirements for safe motorcycle operation and the procedures for getting ready to ride a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
1.2.1. The mental and physical requirements of riding a motorcycle.			
1.2.1.1. Identifies the mental demands of riding a motorcycle as well as the increased crash risk when attention is not focused on the riding task.			
1.2.1.2. Identifies the physical demands of operating a motorcycle and whether or not they are physically capable of operating a motorcycle.			
1.2.1.3. Identifies the importance of riding free of all impairments and distractions, including alcohol and drugs.			
1.2.1.4. Identifies the importance of choosing a motorcycle that fits their physical capabilities.			

1.2.1.5. Identifies special weather, roadway, and traffic conditions that may require additional mental or physical preparation.			
1.2.2. Demonstrates acceptance of and commitment to managing the risks associated with operating a motorcycle in a complex traffic and roadway environment.			
1.2.3. Performs a basic safety check that includes tires, chain, fluid levels, leaks, controls, horn, and lights.			

1.3 The rider can identify the characteristics of proper personal protective equipment and the importance of using it for protection, comfort, and conspicuity to manage the risks associated with riding a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
1.3.1. Uses a DOT compliant helmet and identifies helmet components and functions, proper fit and care, and potential defects.			
1.3.2. Uses eye and/or face protection and identifies available styles, function, and potential defects.			
1.3.3. Identifies the benefits of using hearing protection to minimize hearing loss.			
1.3.4. Uses over-the-ankle protective footwear and identifies the features that provide protection, support, and grip on footrests and road surfaces.			
1.3.5. Uses full-fingered gloves and identifies the features that provide proper fit, grip, and protection.			
1.3.6. Uses long pants and identifies the features that provide protection and comfort.			
1.3.7. Uses long sleeves and identifies the features of a riding jacket that provides protection, comfort, and conspicuity.			
1.3.8. Identifies the features of rain and cold-weather gear that provides protection, comfort, and conspicuity in inclement weather.			

## 2. VEHICLE CONTROL SKILLS

2.1. The rider understands the primary controls and their proper use while maintaining functional control of the motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.1.1. Identifies the location and function of the primary motorcycle controls and information displays.			
2.1.2. Demonstrates proper use of the primary motorcycle controls.			

2.2. The rider understands the proper techniques for mounting and starting a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.2.1. Demonstrates proper technique for mounting the motorcycle.			
2.2.2. Demonstrates proper engine starting procedures.			
2.2.3. Demonstrates proper use of the side stand.			

2.3. The rider understands the proper techniques for stopping the engine, dismounting, and securing a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.3.1. Demonstrates engine stopping procedures.			
2.3.2. Demonstrates proper technique for dismounting a motorcycle.			
2.3.3. Identifies ways to properly secure a motorcycle.			

2.4. The rider understands the proper techniques for clutch and throttle control.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.4.1. Keeps head and eyes up.			
2.4.2. Keeps four fingers on the clutch lever.			
2.4.3. Keeps right wrist flat or down and fingers on the throttle grip.			
2.4.4. Identifies the friction point of the clutch.			
2.4.5. Uses the friction point without fully releasing the clutch.			
2.4.6. Coordinates clutch and throttle to get smoothly underway.			

2.5. The rider understands the proper techniques for riding in a straight line.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.5.1. Demonstrates proper riding posture for head, eyes, back, knees, feet, elbows, hands, and arms.			
2.5.2. Balances the motorcycle.			
2.5.3. Keeps head and eyes up.			
2.5.4. Keeps fingers on the throttle grip.			
2.5.5. Demonstrates proper throttle control.			

2.6. The rider understands the proper techniques for slowing and stopping a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.6.1. Keeps head and eyes up.			
2.6.2. Applies both brakes smoothly.			
2.6.3. Downshifts to appropriate gear.			
2.6.4. Disengages the clutch prior to stopping.			
2.6.5. Slows and stops the motorcycle without stalling.			
2.6.6. Stops at a designated point.			

2.7. The rider understands proper techniques for turning a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.7.1. Identifies roadway information important for safe turning.			
2.7.2. Adjusts speed as needed.			
2.7.3. Completes all braking and downshifting prior to turning.			
2.7.4. Establishes lane position prior to turning.			
2.7.5. Rolls on the throttle, as appropriate.			
2.7.6. Counter steers to lean the motorcycle in the direction of the turn.			
2.7.7. Maintains a steady speed while in the turn.			
2.7.8. Keeps head and eyes up.			
2.7.9. Looks through the turn.			

2.8. The rider understands the proper techniques for shifting gears.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.8.1. Upshifts smoothly without looking down.			
2.8.2. Downshifts smoothly without looking down.			
2.8.3. Matches the gears to speed.			

2.8. The rider understands the proper techniques for shifting gears.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.9.1. Can identify roadway information important for slowing and stopping in a curve.			
2.9.2. Keeps head and eyes up.			
2.9.3. Gradually applies both brakes.			
2.9.4. Straightens the motorcycle and squares the handlebars before stopping.			
2.9.5. Downshifts to appropriate gear.			
2.9.6. Disengages clutch prior to stopping.			
2.9.7. Slows and stops without stalling.			
2.9.8. Stops at a designated point.			

2.10. The rider understands the proper techniques for turning from a stop.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.10.1. Turns the handlebars and leans the motorcycle in the direction of the turn.			
2.10.2. Coordinates clutch, throttle, and balance to get smoothly underway.			

2.10.3. Keeps head and eyes up.			
2.10.4. Looks through the turn.			
2.10.5. Controls path of travel.			

2.11. The rider understands the proper techniques for making tight turns.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
2.11.1. Uses counterweighting technique as necessary.			
2.11.2. Turns head and eyes and looks through the turn.			
2.11.3. Turns the handlebars.			
2.11.4. Coordinates clutch, throttle, and balance.			
2.11.5. Controls path of travel.			

**3. STREET STRATEGIES**

3.1. The rider understands hazards associated with riding.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
3.1.1. Identifies hazardous roadway surface conditions.			
3.1.2. Identifies hazardous environmental conditions.			
3.1.3. Identifies hazards posed by other roadway users, e.g. other vehicles, bicyclists, pedestrians, and animals.			
3.1.4. Identifies "target fixation" and its effects on rider performance.			
3.1.5. Identifies areas and/or conditions in which other road users are most likely to pose hazards.			
3.1.6. Identifies reasons why other drivers don't see motorcyclists.			
3.1.7. Identifies reasons why motorcyclists are more vulnerable to death and injury than other drivers.			

3.2. The rider searches the roadway environment to anticipate and identify hazards.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
3.2.1. Identifies a visual search process to identify hazards and escape routes.			
3.2.1.1. Searches as far ahead as possible.			
3.2.1.2. Searches projected path of travel.			
3.2.1.3. Searches immediate path of travel.			
3.2.1.4. Searches to the sides.			
3.2.1.5. Checks mirrors and blind spots.			
3.2.1.6. Checks motorcycle displays periodically.			

3.2.2. Searches the roadway for debris and surface hazards that may affect motorcycle handling and traction.			
3.2.3. Searches the roadway for traffic controls (signs, signals, and roadway markings) to determine speed, positioning, and identify potential hazards.			
3.2.4. Searches the roadway for other vehicles, bicyclists, pedestrians, and animals to identify hazards.			

3.3. The rider understands strategies to avoid hazards.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
3.3.1. Uses search information to manage speed and roadway position.			
3.3.2. Identifies strategies to be visible to other roadway users.			
3.3.3. Adjusts speed and position to changing roadway conditions, environmental characteristics, traffic controls, and other roadway users.			
3.3.4. Maintains an adequate space cushion and following distance.			
3.3.5. Identifies proper techniques and lane positioning for turning, passing, merging, and changing lanes.			
3.3.6. Uses search information to identify potential escape routes.			

3.4. The rider understands how to respond correctly to hazards.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
3.4.1. Identifies the benefits of communicating presence and/or intentions.			
3.4.2. Identifies the benefits of adjusting speed as necessary to decrease risk.			
3.4.3. Identifies the benefits of adjusting position and/or direction as necessary to decrease risk.			

**4. ROADWAY MANAGEMENT SKILLS**

4.1. The rider understands proper technique for slowing quickly and stopping in the shortest distance in a straight line.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.1.1. Applies maximum brake pressure to front and rear brakes simultaneously without locking either wheel.			
4.1.2. Maintains control and looks well ahead.			
4.1.3. Maintains control of inadvertent wheel skidding of the front and/or rear wheels.			
4.1.4. Downshifts to appropriate gear.			
4.1.5. Identifies awareness of advanced braking systems.			

4.2. The rider understands proper entry speed and path of travel when cornering a motorcycle.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.2.1. Identifies the proper apex for various types of curves and knows the importance of a delayed apex.			
4.2.2. Identifies the proper path of travel for various types of curves.			
4.2.3. Searches for information about the curve, slows and downshifts as needed to an appropriate entry speed prior to entering various types of curves.			
4.2.4. Counter steers to lean the motorcycle into the curve.			
4.2.5. Turns head and looks through the curve.			
4.2.6. Controls lane position and maintains a steady speed in the curve.			

4.3. The rider understands the proper techniques for slowing or stopping quickly in a curve.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.3.1. Identifies the relationship between traction needed for cornering and traction needed for braking.			
4.3.2. Demonstrates straightening the motorcycle and squaring the handlebars before braking in a curve.			
4.3.3. Demonstrates applying and gradually increasing brake pressure as the motorcycle straightens in a curve.			
4.3.4. Identifies circumstances in which each technique would be appropriate.			

4.4. The rider understands the proper techniques for swerving to avoid a collision.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.4.1. Identifies the relationship between traction needed for braking and swerving.			
4.4.2. Maintains control and looks well ahead.			
4.4.3. Counter steers to swerve the motorcycle.			
4.4.4. Leans the motorcycle independent of the body lean.			
4.4.5. Maintains a steady speed while swerving.			
4.4.6. Counter steers to straighten the motorcycle.			
4.4.7. Separates braking from swerving.			

4.5. The rider understands the proper techniques for making lane changes and/or passing other vehicles.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.5.1. Checks mirror and blind spot.			
4.5.2. Signals well in advance.			
4.5.3. Changes lanes and/or passes only when safe to do so.			

4.5.4. Maintains adequate space cushion and appropriate speed.			
4.5.5. Cancels turn signal after completing lane change and/or pass.			

4.6. The rider understands how to adjust to surface hazards and roadway conditions with reduced traction.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.6.1. Identifies hazards that may destabilize a motorcycle or cause a loss of traction e.g. railroad crossings, potholes, speed bumps, construction grooves.			
4.6.2. Identifies conditions of reduced traction, e.g., gravel, sand, leaves, ice.			
4.6.3. Identifies ways to manage the effects of surface hazards and/or reduced traction.			
4.6.4. Adjusts speed, path of travel, space cushion, and lean angle as necessary.			

4.7. The rider understands how to ride in conditions of limited visibility.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.7.1. Identifies characteristics of proper clothing for conditions of limited visibility.			
4.7.2. Identifies the importance of clean and un-tinted eye protection.			
4.7.3. Identifies the benefit of using high beam headlights as appropriate.			
4.7.4. Reduces speed and increases following distance as necessary.			
4.7.5. Identifies the benefit of using headlights and taillights of other vehicles to aid in scanning.			

4.8. The rider understands proper techniques for riding at night.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.8.1. Identifies the importance of wearing bright reflective clothing.			
4.8.2. Identifies the importance of clean eye protection.			
4.8.3. Uses high beam headlights, unless oncoming traffic is approaching.			
4.8.4. Reduces speed and increases following distance as necessary.			
4.8.5. Identifies the relationship between speed and the distance illuminated by the headlights (overriding the headlight).			

4.9. The rider understands proper techniques for riding in the rain.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.9.1. Identifies the benefits of rain gear and reflective materials.			

4.9.2. Reduces speed and increases space cushion as necessary.			
4.9.3. Identifies the conditions in which stopping safely away from the roadway and waiting is preferable.			

4.10. The rider understands how to adjust to windy conditions.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
4.10.1. Identifies areas where wind gusts may affect path of travel or stability.			
4.10.2. Identifies proper technique to counter wind gusts and/or steady wind from the side.			

**5. TASKS RELATED TO CARRYING PASSENGERS, CARGO, GROUP RIDING, AND TOURING**

5.1. The rider understands the proper techniques for riding in a group.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
5.1.1. Identifies the benefits and limitations of various riding formations, e.g. single file, staggered, side-by-side.			
5.1.2. Identifies the importance of avoiding target fixation, active visual scanning, and maintaining a proper space cushion.			
5.1.3. Identifies the value of knowing group riding signals.			
5.1.4. Identifies the effects of peer pressure and group mentality on riding behavior and attention.			
5.1.5. Identifies the reasons for limiting group riding until the rider has gained experience.			

5.2. The rider understands the adjustments necessary for riding with passengers and carrying cargo.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
5.2.1. Identifies the maximum weight capacity of a motorcycle.			
5.2.2. Identifies the benefits of adjusting tire pressure and suspension for added weight.			
5.2.3. Identifies proper passenger mounting, riding, and dismounting procedures.			
5.2.4. Identifies the effects of additional weight on balance, braking, and steering.			
5.2.5. Identifies how to position, secure, and protect cargo.			
5.2.6. Identifies the reasons for limiting carrying passengers until the rider has gained experience.			

5.3. The rider understands the considerations necessary for touring and riding long distances.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
5.3.1. Identifies the risks associated with severe weather, fatigue, and travel in remote areas (e.g. lack of cell phone coverage and emergency medical services.)			
5.3.2. Identifies items necessary for long distance travel (additional clothing, rain gear, tools, etc.)			

5.3.3. Identifies the benefits of frequent breaks for rest, exercise, fluids, and food.			
5.3.4. Identifies the reasons for limiting long-distance riding until the rider has gained experience.			

## 6. FACTORS ADVERSELY AFFECTING RIDER PERFORMANCE

6.1. The rider understands the elevated risks of alcohol and other impairing drugs on motorcycle rider performance and separates riding from the use of alcohol and other drugs.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
6.1.1. Identifies the increased crash risk associated with riding under the influence of alcohol and other drugs.			
6.1.2. Identifies the effects of alcohol and drugs on attention, visual search, recognition of hazards, and physical coordination.			
6.1.3. Identifies the effects of alcohol and drugs on judgment, vision, perception and reaction time.			
6.1.4. Identifies the types of over-the-counter drugs, prescription drugs, and illegal drugs that affect rider performance.			
6.1.5. Identifies the compounding effects of combining alcohol and other drugs.			

6.2. The rider understands the legal, social, personal, and economic consequences of riding impaired and demonstrates a commitment to separating riding from alcohol and/or other drugs.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
6.2.1. Identifies legal, social, personal, and economic consequences of an impaired riding arrest.			
6.2.2. Demonstrates commitment to separating the use of alcohol and other drugs from operating a motorcycle.			
6.2.3. Identifies time as the primary factor for removing alcohol from the rider's system.			
6.2.4. Identifies that time will vary for the removal of other drugs from the rider's system.			
6.2.5. Identifies methods of intervention when a rider is at risk to become under the influence of alcohol or other drugs.			
6.2.6. Identifies the risks of riding with others who are impaired.			
6.2.7. Demonstrates commitment to avoiding riding with others who are impaired.			

6.3. The rider understands and avoids factors that adversely affect rider performance.

Model National Standard	Rider's Guide Reference	Digital Material Reference	Range Card Reference
6.3.1. Identifies factors that contribute to distraction and/or inattention (e.g., communication devices, passengers, etc.).			
6.3.2. Identifies factors that contribute to fatigue and drowsiness.			
6.3.3. Identifies the negative effects of aggression and emotions.			
6.3.4. Identifies the negative effects of overconfidence or lack of confidence.			

6.3.5. Identifies factors of aging and types of health problems that affect rider performance.			
6.3.6. Identifies the negative effects of temperature extremes and exposure (e.g., wind chill, hypothermia, dehydration, etc.).			
6.3.7. Demonstrates commitment to minimizing factors that adversely affect rider performance.			

## DEFINITION OF SELECTED TERMS

**ADVANCED BRAKING SYSTEMS** - variations on the basic motorcycle braking systems. These include:

- **Antilock braking system** – type of braking system that automatically releases brake pressure prior to wheel lockup, prevents skids during straight-line braking.
- **Integrated braking systems** – type of braking system that applies partial front braking when the rear brake is applied.
- **Linked braking system** – type of braking system that applies brake pressure to both brakes when either brake is applied.

**APEX** - point in a rider's path of travel closest to the inside edge of a curve. It is not necessarily in the center of the curve.

**CONSPICUITY** - the quality of being conspicuous; highly visible, easily seen or noticed by others.

**COUNTERSTEER** - to initiate lean by applying forward pressure to the handgrip in the direction of the turn; press right, go right; press left, go left.

**COUNTERWEIGHT** - shifting weight to the outside of the turn. Used to provide better balance in low speed turns.

**FRICTION POINT** - the area of clutch lever movement that begins where the clutch starts to transmit power to the rear wheel and ends just prior to full clutch engagement. Used in getting underway, downshifting and in slow speed maneuvers.

**MOTORCYCLE ACCIDENT CAUSE FACTORS AND IDENTIFICATION OF COUNTERMEASURES (HURT STUDY)** - a motorcycle safety study conducted in the United States, initiated in 1976 and published in 1981. The report is named after its primary author, Professor Harry Hurt. The findings significantly advanced the state of knowledge of the causes of motorcycle crashes. The study also provided data clearly showing that helmets significantly reduce fatalities and brain injuries without any increased risk of crash involvement or neck injury.

**OVERRIDING THE HEADLIGHT** - riding at a speed that does not allow you to avoid hazards or stop within the path illuminated by the headlight.

**SQUARES THE HANDLEBARS** - refers to centering the steering with the motorcycle upright and moving in a straight line. Helps to preserve balance at stops.

**TARGET FIXATION** - staring at the object you are trying to avoid. Associated with riders striking obstacles they were attempting to avoid. Caused by failure to look to the escape route.