

# MOTORCYCLE BASIC ACADEMY

## EXPANDED COURSE OUTLINE

- I. Introduction (Classroom)
  - A. Goals and Objectives
  - B. Introduction
    - 1. Daily Maintenance Check
      - a. The purpose of the daily maintenance check is to check for any breakage and to make sure the motorcycle is in sound mechanical condition. A check for excessive tire wear, tire pressure, and oil level will be conducted. A check for any breakage and overall cleanliness will also be conducted. The chain will also be checked for tightness and wear. On the first day every rider will be checked to make sure that they can put the balls of both feet on the ground while sitting astride the motorcycle. The motorcycle will be checked for any modification which will immediately disqualify the motorcycle and the candidate. All motorcycles must meet factory specifications or they will be disqualified.
  - C. Rules and Regulations
    - 1. Safety Rules and Polices
  - D. Basic Riding Fundamentals
    - 1. Initial Ride
      - a. The initial ride will be conducted after the classroom instruction which will stress slow speeds and the development of good riding habits which involve good posture, surface appraisal, and little or no braking in a turn. At this time use only the rear brakes unless familiar with the front brake. Always look out far ahead so that you can anticipate possible problems. After the classroom instruction a full demonstration of the correct way of starting and putting into motion of the motorcycle will be performed. It will cover smooth clutch-throttle application and the need to stop the clutch when slow riding and when making tight u-turns. During this demonstration hand placement, which is with the right hand around the throttle and the left hand on the grip with the fingers extending over the clutch lever, will be performed. Also covered will be the proper foot placement on the foot boards. The habit of quickly placing the feet onto the footboards and keeping them there to improve balance and limit injuries will also be demonstrated.
    - 2. Flat tire demonstration

- a. The purpose of the flat tire demonstration is to expose the student to the “feeling” of having a flat rear tire. The instructor will take one motorcycle and flatten the rear tire. Each student will then ride the motorcycle, at a slow speed, on a straightaway and through one wide turn in order to get the feeling of what a flat tire acts like. The rider should keep the motorcycle as straight up and down as possible. The rider will feel a sloppy side to side motion in the rear end especially in turns. It should be noted that outside of the demonstration, no rider will ever ride on a flat tire, front or rear.
3. Broad-sliding
  - a. The purpose of broad-sliding is to develop confidence, control, and develop communication between the rider and his motorcycle. The students will approach in a straight line at 10 mph. The rider will then apply his rear brake only locking it up. As the tire begins to slide, turn the handlebars to the left and lean to the left with the body and motorcycle at the same angle. Shift weight to assist rear of motorcycle to swing around to the right. It is very important for the rider not to release the rear brake until the broad slide has been completed. The left foot may be used as a pivot.

## II. Basic Riding Skills

- A. Basic Braking demonstration – the purpose behind the brake demonstration and drills is to show that combination braking will provide your minimum stopping distance. However, there are times and circumstances that dictate rear braking only, mostly in an off-road type situations and turns. It is very important though while applying the front brake not to grab or lunge at the brake lever as that could cause a front wheel lock up. The students must condition themselves to use both front and rear brakes in combination. The students will begin to practice front brake application at 5mph. At a designated spot they will close the throttle and simultaneously disengage the clutch while applying the front brake coming to a complete stop. The front brake lever should be gradually squeezed increasing the pressure until the motorcycle stops. The student should then use the front brake, in combination with the rear brake, as much as possible from this point on.
  1. Straight Line Braking
  2. No Braking in Turns
  3. Front to Rear Wheel Braking Ratio's
- B. Warm Up's
  1. Figure 8's and Circles
    - a. Warm ups – the purpose behind the figure 8 is to develop balance and coordination while turning. The movement will start in a straight line with the turning movements starting after gaining your balance. The student will then make

continuous left and right turns in the form of a figure 8. The student will use clutch-throttle control to keep the turns smooth and follow a path that will allow approximately eighteen foot circles. The student should keep their feet on the foot boards unless it is absolutely necessary to put a foot down to correct balance.

C. Cone Patterns – the purpose of our various cone patterns is to develop coordination, slow speed-balance and skill with close-quarter maneuvers. The students will also learn of the close-quarter turning radius of their motorcycles. The students will need to utilize clutch-throttle control along with good head and eye placement in order to successfully complete each pattern. Rear brake application should be avoided.

1. Practice

a. Offset 90's (Flat and Incline) - the purpose of the 90 degree pullouts is to develop coordination and balance needed to complete close-quarter turns and to become accustomed to the turning radius of the motorcycle. The students will park their motorcycle facing straight forward. They will then move the motorcycle forward lifting up their feet and gaining their balance. They will then complete a 90 degree turn either to the left or right without putting a foot down. Following that exercise the class will line up crash bar to crash bar with approximately 6-12 inches between them. The first rider will pull out and make either a right or left turn and the rest of the students will follow suit.

b. Intersection

c. Formation Riding

a. The purpose of formation riding is to develop skill by practicing precision riding and to become familiar with riding beside other riders. The students will begin by riding single file behind the instructor. Commands will be passed by hand signal from one rider to another, front to rear. Each rider will hold their left hand up long enough to enable riders behind to see the signal. Upon dropping the hands, begin the maneuver. Commands will be two fingers, two columns, four fingers, four columns.

d. Cone Patterns 1,2, & 3

e. 40-MPH Deceleration – the purpose of the 40mph decel is to develop the coordination and reflexes needed to quickly close the throttle and simultaneously apply the brakes. The student rider will approach the exercise at 40 mph in third gear and begin deceleration at a designated spot. The student will need to utilize both brakes to the maximum without locking up the rear brake. The riders will need to

down shift into second gear after substantially reducing momentum prior to coming off brakes and attempting evasive action. Once the speed has been sufficiently reduced release the brakes and turn through the cone pattern. If the riders speed has not been sufficiently reduced the turn should not be attempted and continue straight ahead. No turning while braking should be attempted s that could lead to a loss of control over the motorcycle. Riders are cautioned not to stop in or around the cone pattern as other riders will be in route to the exercise.

- f. 30-MPH Cone Weave – the purpose of the 30 mph cone weave is to acquaint the rider with weight transfer of a motorcycle when negotiating a quick direction change as may be required for a quick lane change as a defensive maneuver. It should be noted that quick lane changes, particularly at high speeds, are not recommended as a normal riding procedure.
- g. 180-Deceleration/Deminishing Clearance
- h. Keyhole

#### D. Test Preparation

- 1. Practice Test Cone Patterns

### III. Test and Evaluation

#### A. Cone Patterns

- 1. 40-MPH Deceleration
- 2. 30-MPH Cone Weave
- 3. 180-Deceleration/Deminishing Clearance
- 4. Cone Pattern 3

#### B. Remediation/Reset

- 1. Positive Counseling
- 2. Coaching
- 3. Retest
- 4. Documentation

### IV. Introduction to Street Riding

- 1. Street Riding Safety
  - a. Column Riding
  - b. Surface Appraisal
  - c. Pair Riding
  - d. U-Turns
  - e. Lane Positioning
- 2. Riding Skills Enhancement
  - a. Enforcement Stops
  - b. Firing Range
- 3. Riding Practical Exercises
  - a. Urban Street Ride
  - b. Night Ride

- c. Canyon Ride
- d. Freeway Ride
- e. Cross County Ride

V. Dirt Riding

A. The purpose of dirt riding is to develop confidence and control when having to leave a paved surface. This will also increase the rider's ability of surface appraisal. The students will ride in a single column behind the instructor. Keep the speed low, first and second gear only, and be sure not to crowd the riders in front. Do not use the front brake on poor or loose surfaces as that will cause it to lock-up or "wash out". Rise up out of the seat and use legs as shock absorbers if bottoming out while going through ditches. The riders need to slip the clutch as necessary to maintain momentum but try not to spin the rear tire.

VI. Hill Climbing

A. The purpose of hill climbing is to develop confidence, control, and surface appraisal. Each student will follow a designated route over the hill. The riders will begin by ascending the hill without coming to a stop at the bottom. The key is to keep the momentum of the motorcycle going and not stop on the hill. The surface will dictate how much throttle will be used. The riders will need to "cover" the clutch control at all times. If a stop is made on the slope, hold the motorcycle with both brakes and wait for an instructor. If the instructor dictates that the motorcycle will be backed down the slope use the front brake to slow its descent. If the motorcycle picks up too much speed release the clutch which will freeze the rear wheel. If the rider loses control of the motorcycle and begins to fall get away from it on the high side and let it go.

VII. Critique

1. Course Evaluation
2. Instructor Evaluation