

Intermediate Rider Training

Solo Range Cards



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RANGE RULES

- Don't practice without permission.
- Stay with each exercise as it's being practiced.
- Wear all protective gear when on the motorcycle.
- Always check around you – front, sides, and behind – before moving.
- Don't crowd other riders – leave plenty of space between you and them.
- Do not pass other riders/ motorcycles unless instructed.
- If you have a problem, move out of the way and signal an instructor.
- If you hear a referee-style whistle, stop immediately and wait for directions.
- If you don't understand an exercise, ask the instructor for clarification.
- Notify an instructor if you are too uncomfortable to ride safely.

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- Late arriving student policy:
 - Students who arrive after the start of the first exercise of the day are not allowed to continue. Instruct them to contact the office at www.idahostar.org or 1-208-639-4540.

Range Day Preparation and Orientation

Range Preparation:

- Cordon off range using large cones and/or banners.
- Clear range of debris and gravel.
- Set cones for first exercise.
- Cones needed: 21 Small, 8 Large.
- Place student motorcycles in staging.
- Place first aid kit, fire extinguisher, extra cones, water, and cups near staging, but off range.

Student Orientation:

- Greet students and help them select helmets as needed.
- Inspect and approve riding gear.
- Inspect student motorcycles for obvious defects that could impair handling or create safety hazard:
 - Fluid leaks
 - Tire wear or underinflation
 - Broken spokes
 - Inoperable or missing controls such as:
 - Front or rear brakes
 - Engine cut-off switch
 - Sticky throttle
- Introduce yourself.
- Read Range Rules (opposite page).
- Review hand signals:
 - Start engine
 - Stop engine
 - Speed up
 - Slow down
 - Stop
 - Staging
- Identify referee's whistle - all stop.
- Identify range riding area.
 - Large cones define outside perimeter of range. Remain within 10' of the perimeter at all times. Do not ride off the range.
- Describe expectations:
 - Practice skills to prevent common crashes.
 - Apply skills and strategies discussed in the (online) classroom.
- OPTIONAL - Offer a quick tutorial for the ONE-C controls to students before the class starts. If student wants to mount motorcycle, ALL GEAR must be worn.

Exercise 1 - Weave

RANGE
PREP

Set (14) weave cones, (6) gate cones, and (2) large cones in center lane.

▲ -2

Place motorcycles in staging.

● -20

Objective:

- You will ride around the perimeter and weave between the cones.

Directions:

- Begin riding around the perimeter to the left in 2nd gear.
- When you reach the far side of the range, begin weaving between the cones.
- Ride to the right of the first cone, left of the second cone, and so on.
- Ride through the gates (*point out*) on the end of the range.
- Keep your head and eyes up, looking where you want to go, not down at the cones.
- Continue riding until the Instructor signals you to return to staging.

Reminders

- Maintain a safe distance between you and the rider ahead by looking forward, not down.
- Speed up if you feel wobbly or unstable.
- Use this exercise to get warmed up and ready for the day.

What questions do you have?

Debrief:

- Was it easier going faster or slower?
- What happened if you looked down at the cones?

What to Coach:

- Speed for stability. Coach only if they are unstable.
- Head and eyes up

Exercise Guidelines:

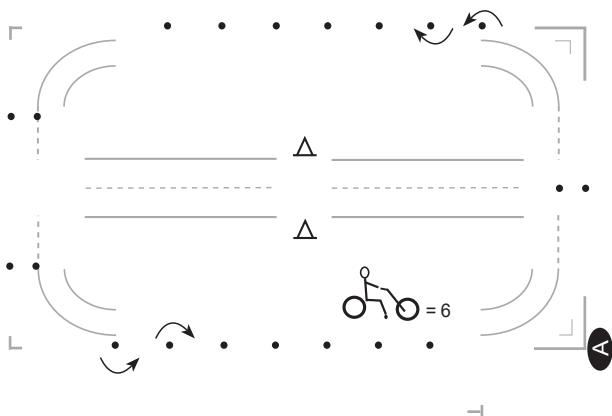
- Coach as needed.
- Allow students to discover countersteering on their own.
- One of the objectives of this exercise is to evaluate overall control. If the student cannot maintain control of the motorcycle in this exercise, they should be dismissed and encouraged to take a Basic course.

Range Control Tips:

- Keep speeds under 15 mph.
- Counsel any student who is unable to complete drill safely to take a Basic Course and dismiss from class. Advise student to contact **STAR** office. Make note of this on Course Roster/ Course Report.

Time/repetitions:

- Run this drill for 5 minutes.

Range Layout**Staging:**

Walk across range and direct students to line up at the first cone. Give slow signal as they approach. If the lead rider is going too fast to stop safely, choose another rider, give the slow signal early then stop. Send riders around the perimeter to staging. Once all students are in staging with bikes off, explain staging guidelines for later exercises:

- Stop in a single-file line.
- Shut down engines.
- Remain seated until all riders are parked and all bikes are off unless told otherwise by the Instructor.

Exercise 2 - Offset Weave & Sharp Turns

RANGE PREP

Leave (2) far end gates and (2) large cones.

Move (7) weave cones as needed, set up

▲ - 2

(5) Sharp Turn cones and move (2) staging-side

● - 16

gates to end of center lane.

Objective:

- Riders will balance and control their motorcycle in slow-speed maneuvers and sharp turns.

Directions:

- Begin by riding up the center of the range.
- At the end, turn left or right through the gate and down the perimeter.
- Ride to the right of the first cone and weave between the cones.
- After completing the weave, ride through the sharp turn.
- After the sharp turn, ride between the gates and up the middle of the range in the lane closest to you.
- Change lanes at the large cones and repeat the weave and sharp turn on the opposite side.
- Continue to alternate sides on each lap through the exercise.
- Try both 1st and 2nd gear to determine what works best for you and your bike.

Demonstration:

(Demo one complete lap - speed should be fast enough to show balance and control)

As this exercise is demonstrated, watch for:

- Adequate speed for balance.
- Using the clutch to control speed.
- Head and eyes for directional control.

Reminders:

- Speed and head and eyes will help you balance the motorcycle.
- Use the friction zone or ride the clutch to control your speed when riding slowly.
- A good head turn and looking well beyond the turn will help guide you through the sharp turn.

What questions do you have?

Debrief:

- What part of this exercise was the most challenging?
- Where would you use these techniques in the real world?

What to Coach:

- Clutch use to control speed/power to rear wheel.
- Head and eyes for directional control.
- Safe interactions with others.

Exercise Guidelines:

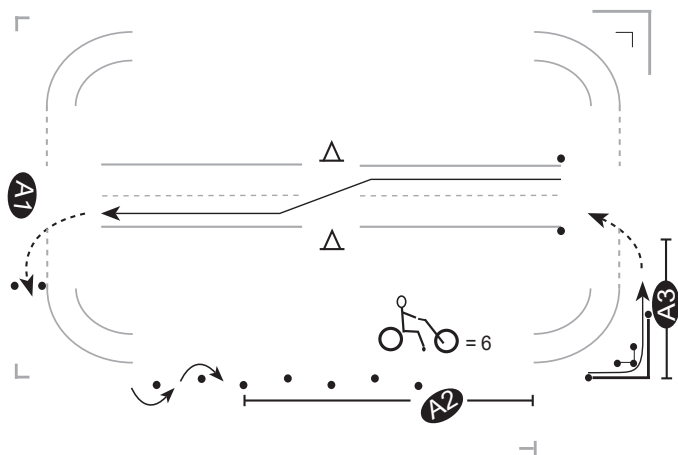
- Coach as needed.

Range Control Tips:

- Help the students get started by calling riders from A1 to ride up the center, then alternate sides.
- There are three coaching positions that all have unique coaching objectives:
 - Coach lane changes (A1)
 - The offset weave (A2)
 - The sharp turn (A3)

Time/Repetitions:

- Run this exercise for 15 minutes.
- For first 2 minutes after riders are in motion, coach lane changes from the A1 position.
- After 2 minutes, move to the A2 position.
- After 8 minutes, move to the A3 position.

Range Layout:**Staging**

Stop students in the center of the range in one line and send them to staging.

Exercise 3 - Progressive Offset & Sharp Turns

RANGE
PREP

Set the (14) progressive weave cones.

▲ - 2

● - 16

Objective:

- Riders will practice offset weaves and sharp turns to improve balance and slow speed control.

Directions:

- Make a U-turn out of staging and ride toward the end of the range.
- Turn right at the end of the range to pass through the gate (*point out*) and ride down the center lane. At the end, ride through the gate (*point out*) and turn left or right.
- Ride through the sharp turn and look ahead to find your line for the outside of each progressive offset weave cone.
- At the end of each weave, make a large U-turn through the gate and change lanes at the large cones (*point out*).
- Continue riding the circuit by alternating sides.
- Try both first and second gear to determine what works best for you and your bike.

Demonstration:

(Demo one complete lap - Speed should be fast enough to show balance and control)

As this exercise is demonstrated, watch for:

- Adequate speed for balance.
- Using the friction zone to control speed.
- Early head turns to choose the best line.

Reminders:

- Keep your head and eyes up and plan your path of travel as far ahead as you can.
- Ride the clutch/use the friction zone to control your speed when riding slowly.

What questions do you have?

Debrief:

- Why is it important to use the clutch to control your speed?
- What happened if you failed to look *well* ahead in the weave? Sharp turn?

What to Coach:

- Head and eyes for directional control.
- Use clutch to control speed.

Exercise Guidelines:

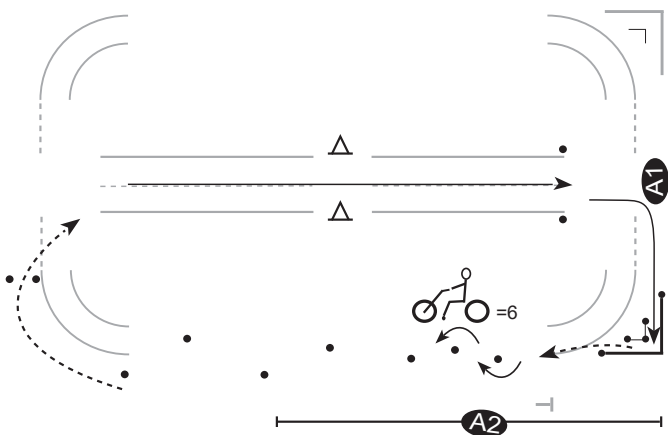
- Coach as needed.

Range Control Tips:

- Tell students to make a U-Turn out of staging, ride toward end of range, turn right to ride down center to you. Alternate each rider to the left or right.
- There are two coaching positions:
Ensure safe spacing and POT (A1), coach progressive offset and sharp turn (A2).

Time/Repetitions:

- Run this exercise for 15 minutes.
- For first 2 minutes, ensure riders follow the POT from the A1 position.
- After 2 minutes, move to the A2 position and coach both objectives as needed.

Range Layout:**Staging**

Stop students in the center of the range in one line. Direct students to turn left, ride around the perimeter and back to staging.

Exercise 4 - Swerving

RANGE
PREP

Strike previous setup. Set the swerve obstacle lines and gates (57' & 13').

▲ - 1

● - 21

Objective:

- Riders will swerve to avoid an obstacle in their path and separate swerving and braking.

Directions:

- Line up at the start gates (*point out*).
- Ride toward the gates and obstacle (*point out*) at 15-18 mph.
- After passing through the 2nd set of cones press on the appropriate handgrip to swerve into the lane. Press left, go left. Press right, go right.
- Press on the opposite handgrip to straighten the motorcycle in the lane.
- After straightening, slow before rounding the pivot cone. Be prepared to stop if directed.
- Proceed when the rider ahead passes the first gates.
- You may choose which direction to swerve, left or right.

Demonstration:

(Demo one lap per swerve side - Speed should be 15-18 mph)

As this exercise is demonstrated, watch for:

- How the motorcycle moves and rider remains upright.
- How the rider separates swerving and braking.
- Where the rider is looking during the swerve.

Reminders:

- Don't wait until I call you to proceed.
- Separate swerving and slowing into two separate steps. Swerve, THEN slow.

What questions do you have?

Debrief:

- How long do you need to hold the first press?
- Why is it important to separate swerving and braking?
- What should you do in a situation that requires swerving and braking *together*?

What to Coach:

- Press to lean/press to straighten.
- Does not brake while swerving.

Exercise Guidelines:

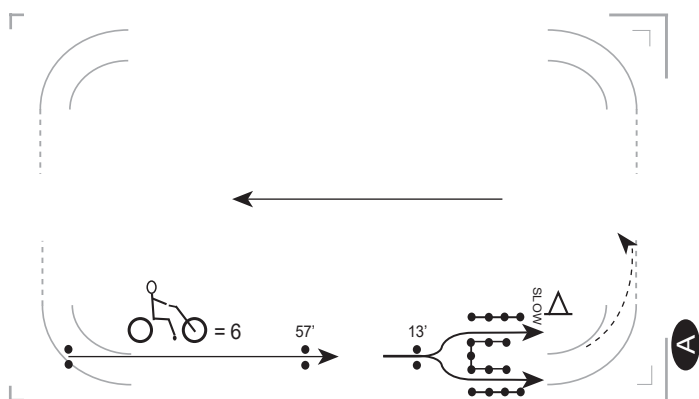
- Coach as needed.
- Students found braking while swerving **MUST** be corrected.

Range Control Tips:

- Send riders up the center to line up at start gate.
- Position yourself well behind the swerve box (you should be back far enough so that you are standing on the short side of the perimeter). This allows you to stop students if they need coaching.
- If individual riders must be pulled out for coaching, move them outside the path of travel.
- Stop riders then send to staging.

Time/Repetitions:

- Run this exercise for 15 minutes.

Range Layout:**Staging**

Stop riders. Direct group to return to staging.

BREAK - 15 MINUTES

Exercise 5 - Cornering Judgment

RANGE
PREP

Strike previous setup. Set (8) curve cones and (3) pivot cones.

▲ - 3

● - 8

Objective:

- Riders will slow to a suitable entry speed, turn their heads and look toward the exit while making smooth throttle adjustments through curves.

Directions:

- Ride through the two marked curves (*point out*) and around the pivot cones to the left at 15-20 mph.
- Slow with both brakes prior to each curve entrance and look all the way through the turn to the exit.
- Press forward on the inside handgrip to initiate your turn and smoothly apply throttle.
- Maintain a steady speed until you see the exit, then smoothly accelerate out of each corner.
- Look to the next curve and repeat the circuit until signaled to return to staging.
- Once all groups have ridden to the left, this exercise will be repeated to the right

Demonstration:

(Demo two complete laps - Speed should be 15-20 mph)

As this exercise is demonstrated, watch for:

- How the rider slows prior to each marked curve.
- Rider's head turning to face the exit.
- Smooth acceleration out of each corner.

Reminders:

- Complete braking before the corner, using both brakes each time.
- A good head turn will enable you to see the exit, assess proper throttle application timing, and choose the best lines through each curve.
- Maintain a steady throttle until your exit comes into view, then accelerate smoothly out of the corner. Avoid "coasting" through the curves.

What questions do you have?

Debrief:

- Why should you look to your exit BEFORE the turn?
- Why should you apply both brakes to slow early?

What to Coach:

- Smooth application of both brakes prior to corner.
- Head turned toward the exit or next turn.
- Smooth control inputs.

Exercise Guidelines:

- Part A: Instructor coaches students to LOOK AT ME beside the large cone, then moves to middle pivot cone to encourage riders to LOOK TO THE NEXT TURN.
- Part B: Instructor coaches students as needed.

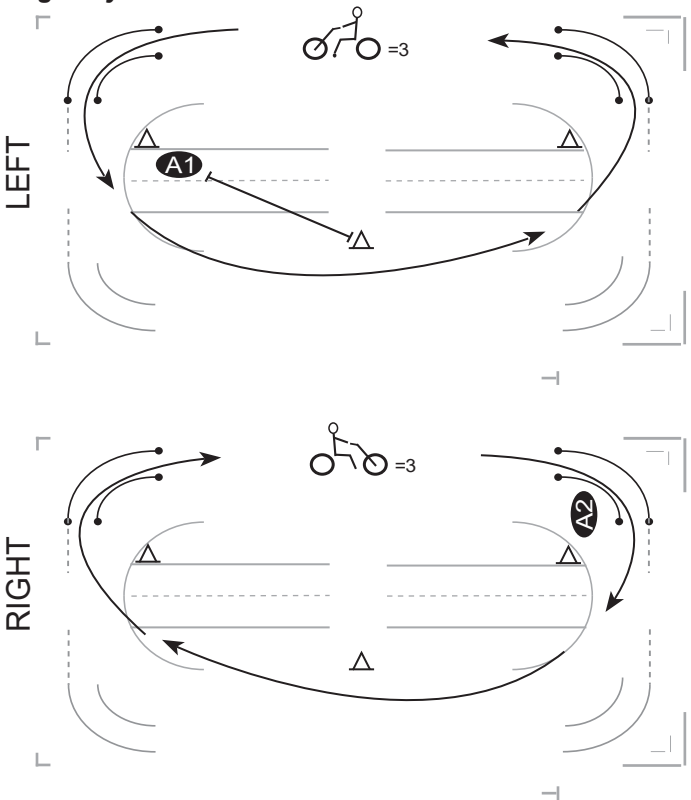
Range Control Tips:

- Use R3 reversal (pg 35) from staging (right).

Time/Repetitions:

- Run this exercise for 25 minutes with two groups.
- Each group should ride 4-6 minutes in each direction.

Range Layout:



Staging:

To the left - Instructor to give the staging signal in motion.
To the right - Instructor stops riders on perimeter. Direct lead rider to make a wide S-turn and return to staging.

Exercise 6 - Linking Curves

RANGE
PREP

Keep previous setup. Set curve cones (16), pivot cone, and perimeter weave cones (3 large).

▲ - 4

● - 16

Objective:

- Riders will smoothly link multiple curves with a constant speed.

Directions:

- Begin by riding the course to the left at 15-20 mph.
- Ride through all marked corners on the short ends of the range (*point out*), through the weave on the far side of the range (*point out*), and around the pivot cone on the near side (*point out*).
- Look as far ahead as possible to plan your path of travel, and make the exit of each corner line up with the entrance to the next.
- Ride at a steady pace without making significant corrections in speed or cornering lines.
- Once everyone has ridden to the left, the exercise will be reversed.

Demonstration:

(Demo two complete laps - Speed should be steady at 15-20mph)

As this exercise is demonstrated, watch for:

- Head turns to see upcoming corners.
- Steady speed or slight adjustments for a smooth ride.
- How the rider chooses a good line to link turns smoothly.

Reminders:

- Look as far ahead as possible for what is next and plan your line selection and speed.
- It's not a racetrack and it is not about going fast. Keep speeds between 15 and 20 mph. Think "smooth," not "quick."

What questions do you have?

Debrief:

- What have you learned about riding through linked curves?
- Where would you encounter linked curves?

What to Coach:

- Head and eyes looking ahead to plan cornering lines.
- Smooth brake and throttle adjustments.
- Safe interactions with other riders.

Exercise Guidelines:

- Coach as needed.

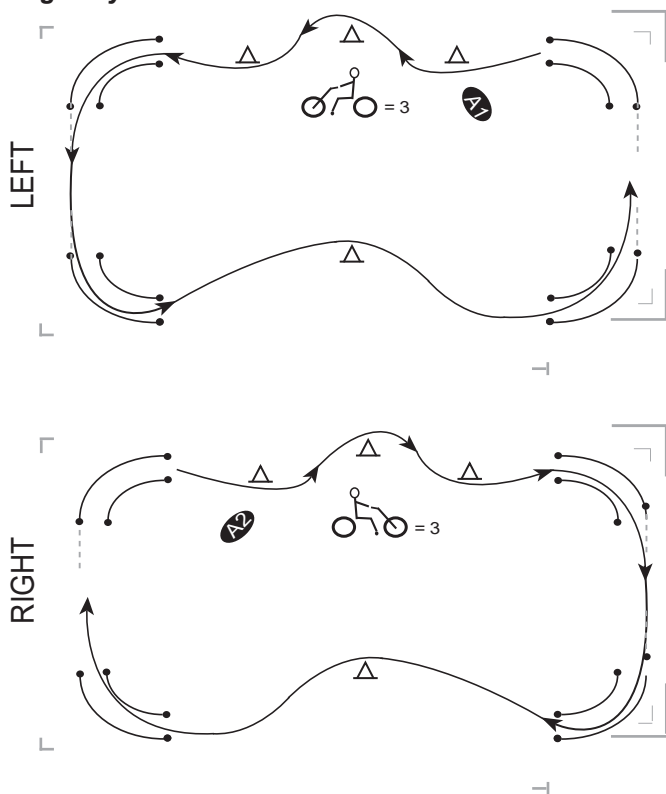
Range Control Tips:

- Instructor should position themselves as the visual target at the exit of the eyebrow leading toward the weave and adjust their position as needed.
- Use R3 reversal (pg 35) from staging (right).

Time/Repetitions:

- No more than 3 riders per group.
- Each group should ride for 4-6 minutes, then return to staging.
- Once all groups have ridden to the left, repeat to the right.

Range Layout:



Staging:

Move to the midpoint of the long side of the range to give the staging signal in motion. To the right, stop riders after the midpoint of the long side of the range and direct riders to make a wide S-turn back to staging.

Exercise 7 - Cornering & Braking

RANGE PREP

Move small cones for start gates and set (3) large cones for stop gates. Strike (1) large cone and (2) small cones.

▲ - 3

● - 14

Objective:

- Riders will practice cornering and stopping smoothly.

Directions:

- Begin by lining up at the start gate (*point out*).
- One at a time and on signal, ride through the first curve to the right (*point out*), then speed up to 15-20 mph.
- Prior to the second curve (*point out*), use both brakes to slow to a safe entry speed and look to the instructor who called you.
- Countersteer by pressing on the inside handgrip to ride through the corner. Maintain a steady speed.
- When your exit comes into view, smoothly accelerate out of the curve as you straighten the bike.
- When your front tire passes the large cones (*point out*), come to a smooth stop with both brakes.
- After stopping, wait for coaching, then return to the end of the line.
- The exercise will be reversed.

Demonstration:

(Demo two laps to the right, stopping once at each gate. Speed, 18-20 mph prior to the second curve)

As this exercise is demonstrated, watch for:

- Slowing with both brakes to a safe entry speed.
- Looking through the turn EARLY and accelerating when the exit comes into view.
- Stopping smoothly in a straight line.

Reminders:

- Look EARLY through the turn and accelerate when you can see your exit.
- Use both brakes to slow EARLY for a safe entry speed.
- Notice the second turn may be tighter depending on the instructor who called you.

What questions do you have?

Debrief:

- What are the most common reasons for riders crashing in corners?
- What should you do if you are running wide in a curve?

What to Coach:

- Both brakes to slow before the turn.
- Early head turn to face the exit then smooth acceleration once the exit comes into view.
- Smooth stops (both brakes, head and eyes up/forward).

Exercise Guidelines:

- Coach as needed.
- This is your best opportunity to observe cornering, and to provide 1 on 1 coaching.
- Limit coaching to 1-2 items to keep the line moving.
- Move (2) small exit gate cones in center of range when reversing directions.

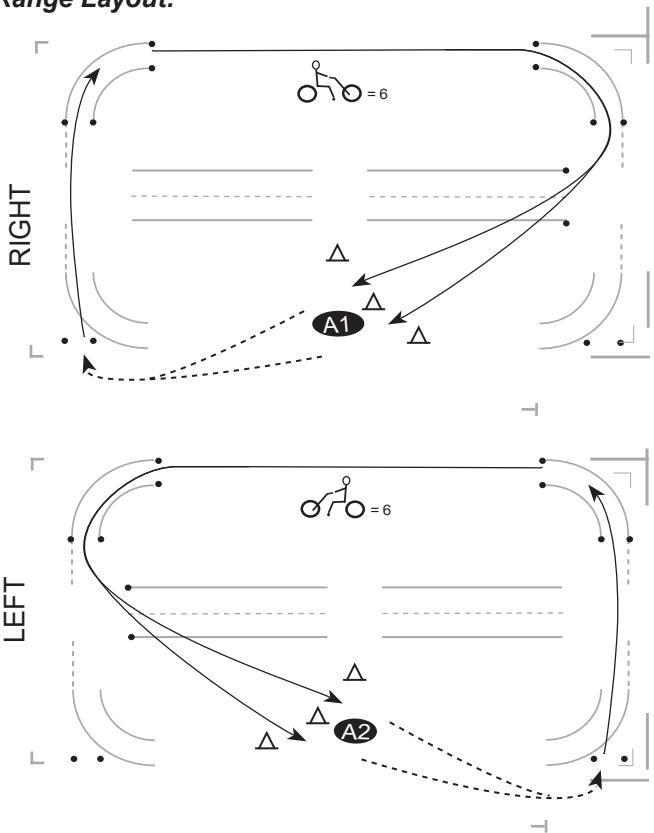
Range Control Tips:

- Instructor alternates each of the braking chutes as needed and calls riders to them *one at a time*.

Time/Repetitions:

- Reverse at 10 minutes by directing lead rider to line up at the opposite start gate.

Range Layout:



Staging

Stop calling riders. Leave in line for Maximum Braking after BREAK. Swap small start gate cones for large cones.

BREAK - 15 MINUTES

Exercise 8 - Maximum Braking

RANGE	<i>Strike curves, swap small start gate cones for (2)</i>
PREP	<i>large cones, set (2) large cones for brake cues</i>
▲ - 5	<i>and (1) large pivot cones.</i>

Objective:

- Riders will stop their motorcycle quickly using both brakes.

Directions:

- On signal, ride around the pivot cone to the Instructor who called you.
- Upshift to 2nd gear as soon as you can and maintain a steady speed of 20-25 mph.
- When your front tire reaches the cones, stop quickly while downshifting to 1st gear.
- Come to a complete stop and wait for coaching before returning to the end of the line.
- Remember to brake smoothly as you work on quicker stops.
- Caution - before leaving the braking area, check for crossing traffic.

Demonstration:

(Demo one stop at each gate. Speed up smoothly, do not exceed 25 mph prior to the braking chute)

As this exercise is demonstrated, watch for:

- Using both brakes to stop quickly and safely.
- Continuing to squeeze the front brake lever until stopped.
- Keeping head and eyes up to stop in a straight line.

Reminders:

- The key to shortening your stopping distance is by applying both brakes. As weight transfers forward, smoothly continue to increase pressure on the front brake while reducing pressure on the rear brake.
- Avoid abrupt braking inputs and work on smooth application of both brakes.
- Keeping your head and eyes up and forward will help you stop in a straight line.

What questions do you have?

Debrief:

- How do you handle skids if they happen?
- What happens to your stopping distance if you don't smoothly *increase* squeeze pressure on the front brake?

What to Coach:

- Smooth, increasing pressure on front.
- Light pressure on rear.
- Head and eyes up during stop.

Exercise Guidelines:

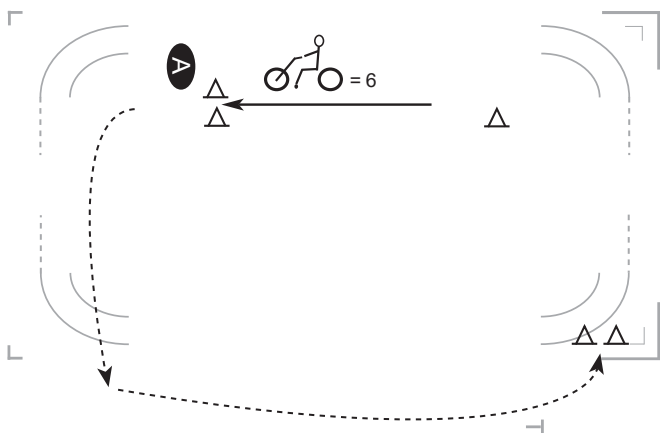
- Coach as needed.
- Gradually coach the students to use more front brake pressure.
- The goal is to coach maximum braking. Watch for smooth and increasing fork compression and shorter stopping distances to indicate improved braking performance. The front tire may 'howl' or 'chirp' indicating an impending skid.
- Encourage riders with ABS-equipped bikes to apply brakes smoothly and fully.

Range Control Tips:

- Call riders one at a time and ensure previous rider has safely left the braking chute.
- Stand on the brake side to evaluate front/ rear brake application.

Time/Repetitions:

- Run this exercise for 15 minutes.

Range Layout:**Staging**

Stop calling students. Send riders in one line around the perimeter to staging.

Exercise 9 - Figure 8 & Turns Turns From a Stop

RANGE *Strike previous setup. Set (2) start gate cones,*
PREP *(1) turns-from-a-stop cones, and (2) 360-turn cones.*

▲ - 5

Objective:

- Riders will coordinate clutch, throttle, and head turns to make U-turns and turns from a stop.

Directions:

- Begin by lining up at the start gates.
- Ride to the end of your lane and turn toward the outside of the large cone.
- Make a figure-8 around the 2 large cones (*point out*).
- After completing the figure-8, ride down the perimeter to the sharp turn (*point out*) and stop by the cone.
- Make a sharp turn through the corner, staying inside the boundary lines, then get back in line to repeat the circuit, alternating sides.
- You may start the circuit after the rider in front completes the figure-8.

Demonstration:

(Demo one lap, speed should be fast enough to show balance and control)

As this exercise is demonstrated, watch for:

- Adequate speed for balance.
- Using the clutch to control speed.
- Head and eyes for directional control.

STATIC PRACTICE: TURNS FROM A STOP (PG 36)

Reminders:

- Maintaining steady throttle and looking up, where you want to go, will help you balance the motorcycle.
- Use the clutch to control how much power is transmitted to the rear wheel.
- Moving your body to the outside of the turn by shifting your weight to the outside footpeg helps you balance at slow speeds and makes the turn tighter.
- Light pressure on the rear brake can also help you balance the motorcycle in slow, tight turns.

What questions do you have?

Debrief:

- How did your motorcycle handle the tighter turns?
- When would you use the turn from a stop in the real world?

What to Coach:

- Clutch use to control speed/power to rear wheel.
- Head and eyes for directional control.
- Counterweight as needed.

Exercise Guidelines:

- Coach as needed.

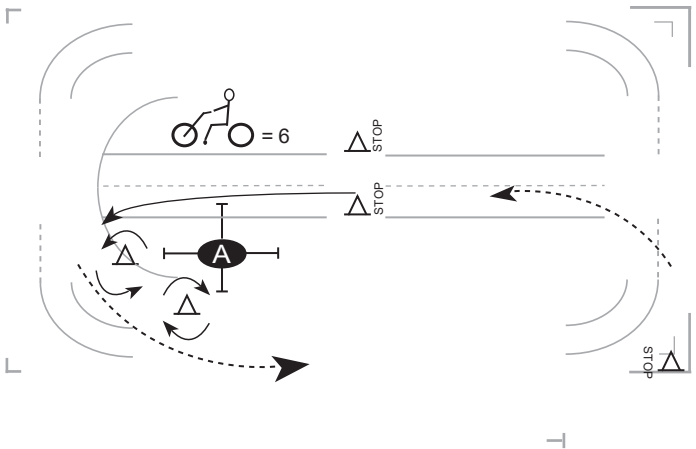
Range Control Tips:

- Send riders to line up at the start point in one line.
- Maintain rider spacing to ensure safety and facilitate coaching.
- Instructor coaches the Figure-8 and observes the turns from a stop as needed.
- Stay alert to maintain visual control over all riders performing the exercise.

Time/Repetitions:

- Run this exercise for 15 minutes.

Range Layout:



Staging

Stop students at the start gates and send one line at a time to staging.

Exercise 10 - Straighten & Brake

RANGE
PREP

Strike previous setup. Set start cones (4) and curve cones (4).

▲ - 8

Objective:

- Riders will practice stopping safely in curves when signaled.

Directions:

- Begin by lining up at the start gate (*point out*).
- When the Instructor calls you, speed up to 12-14 mph.
- Ride outside the painted arc. When signaled (*show signal*), straighten the motorcycle on a new path and come to a rapid stop in a straight line.
- After stopping, ride through the gate and back around to the starting point to continue the exercise.

Demonstration

(Demo one complete lap to the left, speed 12-14 mph)

As this exercise is demonstrated, watch for:

- Head and eyes up and looking where the rider wants to go.
- Smooth control inputs to straighten the motorcycle.
- Clear separation of turning and braking.
- Handlebars squared when stopped.

Reminders:

- Traction is limited when in a lean.
- Separate leaning and braking when you need to stop quickly.
- Your handlebars must square when coming to a stop.

What questions do you have?

Debrief:

- When would you use this technique on the road?
- How can you improve your reaction time to stop on blind curves if an obstacle is in your path?
Slow before curves, cover the clutch and brakes, anticipate.

What to Coach:

- Head and eyes up.
- Separation of straightening and braking.

Exercise Guidelines:

- Coach as needed.

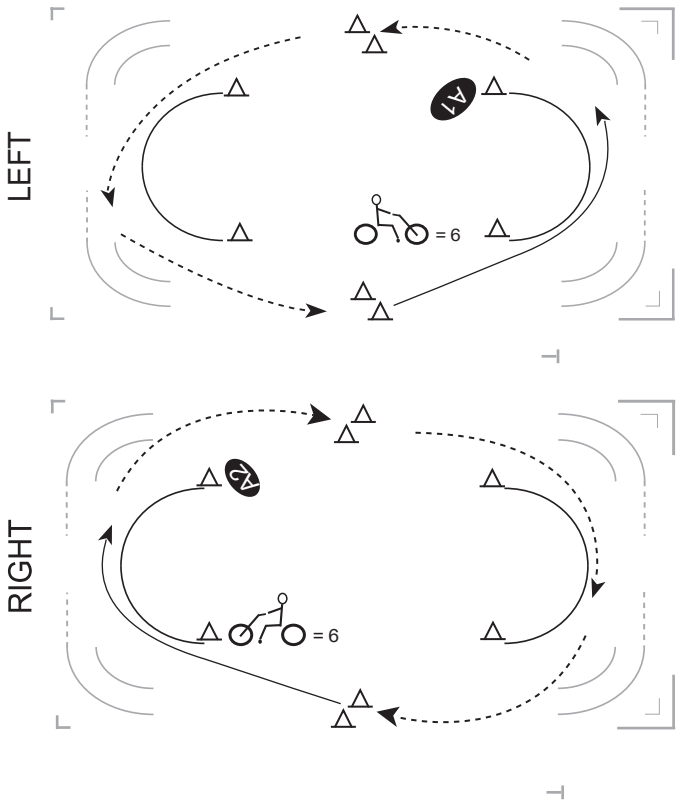
Range Control Tips:

- Move cones while reversing students.

Time/Repetitions:

- Run this exercise for 10 minutes in each direction.
- For the reversal, direct lead rider to make a large U-turn and return to the start point facing the opposite direction.

Range Layout:



Staging

Return to staging by directing group nearest staging to make a wide U-turn and return to staging.

Exercise 11 - Decreasing Radius Turns and Traffic Interaction

RANGE PREP

Strike previous setup. Set (6) large start and stop gates, (1) large stop cone, and (6) small turn gates.

▲ - 7

● - 6

Objective:

- Riders will navigate a series of decreasing radius curves and safely interact with other traffic.

Directions:

- Begin by lining up at the start gates (*point out*).
- Once the rider ahead clears the first gate, proceed through each gate (*point out*) as the spiral path becomes tighter.
- Come to a smooth stop at the STOP cone, next to the Instructor.
- Check for traffic, and when a safe gap opens, exit the course by riding past the gates (*point out*) and return to the end of the line.
- When directed, you will repeat the exercise to the right.

Demonstration:

(Demo two laps - Speed should be 15-20 mph)

As this exercise is demonstrated, watch for:

- Rider's path of travel.
- Head and eyes for directional control
- Where to stop and select a safe gap.
- How to exit the course to return to the end of the line.

Reminders:

- The path will continue to tighten as you progress, so keep looking ahead to plan your route and speed.
- Once stopped, find a safe gap to exit the exercise as quickly as you can.
- CAUTION - You may need to brake in a lean for the final turn.

What questions do you have?

Debrief:

- How can you safely slow down while the motorcycle is in a lean?
- How does this exercise prepare you for the street?

What to Coach:

- Head and eyes to select path of travel.
- Safe interaction with other traffic.

Exercise Guidelines:

- Coach as needed.
- Re-orient STOP cones and small cones at reversal.

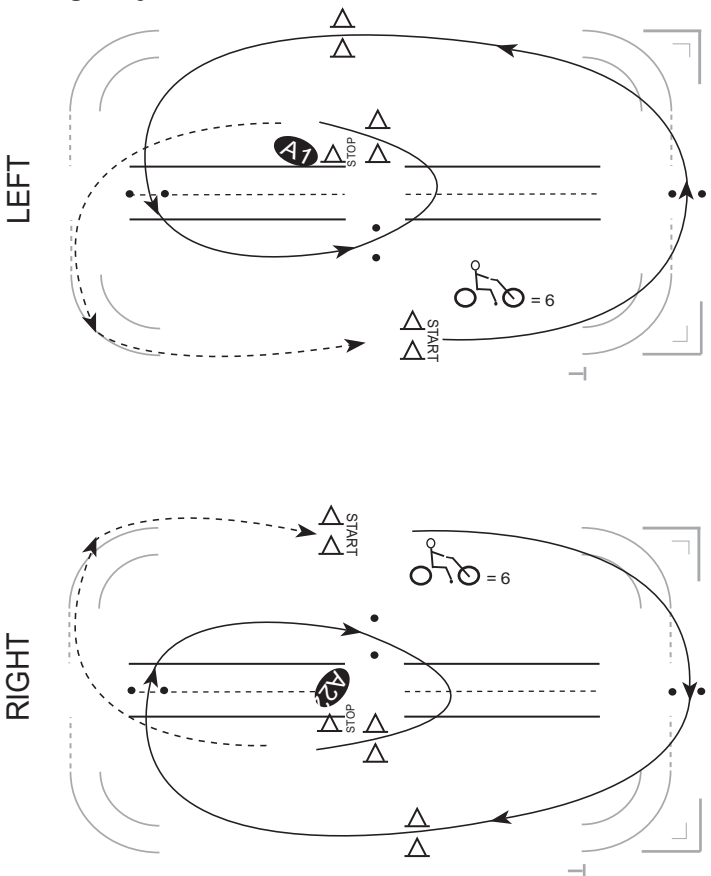
Range Control Tips:

- Instructor should help start students by metering them out at the start gate and help direct students to either complete the circuit or return to the line, as appropriate.
- Instructor can maintain range control of the exit path and traffic interaction by reminding students to ride past the curve gates to get back in line.

Time/Repetitions:

- Reverse at 12 minutes by directing lead rider to make an S-Turn to line up at the opposite start gate.

Range Layout:



Staging

Stop students in line and send them to the start cone for the Skills Evaluation.

Range Review

Most of what we did today could be considered accident avoidance skills - maximum braking and braking in corners, swerving, and cornering since most single vehicle crashes happen there. We also did quite a bit of slow speed practice because that's where most tip-overs occur. Let's review each of these:

Maximum Braking

How do you achieve smooth, quick stops in the shortest distance?

- Smooth, increasing pressure on the front.
- Light to lighter pressure on the rear.

How do you maintain a straight line and keep your balance when stopping quickly?

- Head and eyes up and forward for balance.
- Straighten the handlebars as you come to a stop.

Stopping in Corners

What is your main concern when braking in a corner? Why?

- Maintaining traction because traction is being shared between cornering forces and braking forces.

Which technique allows you to stop more quickly?

- Straighten, then brake is the safest and quickest, if road and traffic conditions allow for it.
- Stopping smoothly in the corner works if you need to stay in your lane.

Swerving

How do you execute a safe swerve maneuver?

- Keep a steady speed and press on the handlebars to quickly navigate away from the hazard before returning to your path of travel.
- Keep your head and eyes up on the clear path in front of you.
- Keep your body upright and allow the bike to lean under you.

Why is it critical that you separate swerving and braking?

- Traction is a concern again, so avoid braking and swerving at the same time. If both are needed, separate the two.

Cornering

What are the essential techniques for safer cornering?

- Slow early and set a good entry speed, keeping in mind what you can't see through the corner.
- Choose a good line. Starting to the outside gives you more options, if the path is clear.
- Look to the exit or as far ahead as possible and press on the handlebars to lean the bike in the direction of the turn.
- Keep a steady throttle until the exit comes into view, then accelerate out of the turn.

Slow Speed Maneuvers

What techniques have you learned and practiced today for handling your motorcycle in slow speed maneuvers?

- Keep your head and eyes up, looking through the turn and beyond the exit.
- Choose a good line and use all of the available space, but practice working on tightening your turns.
- Use the throttle and clutch to control your speed and use smooth controls.
- Counterweight as needed to improve the balance of the bike. Move your body to the outside of the turn or put more weight on the outside peg.
- Applying light pressure to the rear brake can help stabilize the motorcycle in slow, tight turns.

BREAK - 15 MINUTES

Skills Evaluation 1 - Swerve

RANGE PREP

● - 5

☪ - 9

▲ - 2

★ - 15

Strike far side swerve, pivot cone and end gates. Set start cone in the center of the lane lines. Set cone weave (7), sharp turn (5) and 'gate' (2) on far side. Set Swerve (15) Stopwatch, clipboard and score sheet required.

Assemble class in staging area to assign testing order and read instructions for Evaluation 1.

READ TO CLASS:

We will begin a Skills Evaluation that consists of five exercises that evaluate your ability to perform basic vehicle control, riding judgment, and hazard-response skills that have been taught and practiced in this course. The test may be terminated due to falling or dropping the motorcycle or committing an unsafe act. You may stop the test for any reason, but you must complete the entire test to pass it. Do you have any questions?

OBJECTIVE:

You will execute a proper swerve maneuver.

DIRECTIONS:

1. Line up next to the large cone in the center of the range (*point out*).
2. One at a time and on signal, proceed to the start gate (*point out*) and ride toward the swerve gates and obstacle (*point out*) at 15 mph.
4. Ride between the last set of cones (*point out*), then swerve to the right. Stay within the boundaries. Do not brake while swerving.
5. Slow and turn left around the pivot cone and get back in line.
6. Wait for further instructions.
7. You will lose points for braking during the swerve, touching or crossing any line or cone, or not obtaining proper speed.
8. Do you have any questions?

Direct students to ride up the center of the range and line up next to the large cone.

NOTE: Some students may stop at the start gate before proceeding to the swerve; others may not. Either is OK.

SCORING

POINTS
Once More

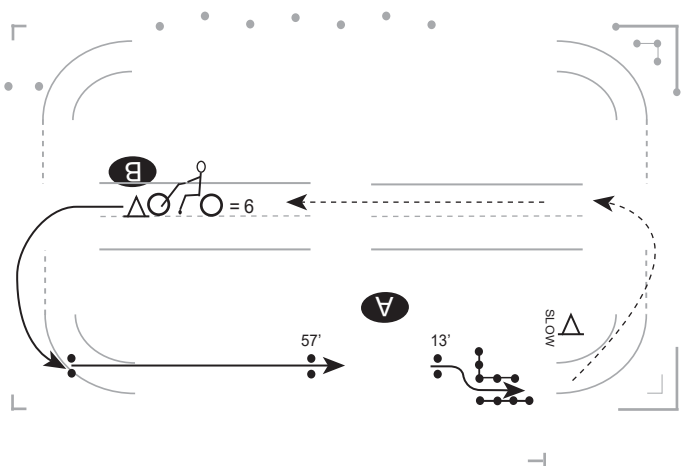
1. Swerve		
a. Brakes during swerve maneuver		- 5
b. Touches any line or cone	-3	- 5
c. Tire(s) crosses obstacle or boundary line	-5	-10
d. Does not attain proper speed, 2 nd attempt		-10
e. Swerves prior to gate cones, 2 nd attempt		-10
Maximum Penalty Points Allowed		-10

NOTE:

- Score if any part of the motorcycle touches a cone, line or boundary.
- Only one student at a time is allowed on the course.
- A second attempt is authorized in the swerve maneuver only under the following conditions:
 - speed too fast – under 1.66 seconds with points violation
 - speed too slow – over 2.51 seconds
 - swerves prior to gate cones
- Brakes during swerve – watch for brake light from the time the front tire reaches 13' swerve gate until rear tire reaches barrier line.
- Drop bike (21 pts) - front tire enters the timing zone to rear tire clears pivot cone.

A – Position for timing and to score swerve

B – Position to line up and direct traffic as needed



Skills Evaluation 2 - Offset Weave and Sharp Turn

RANGE
PREP

No cone movements.

OBJECTIVE:

You will ride through a cone weave and execute a proper sharp turn.

DIRECTIONS:

1. One at a time and on signal, begin riding toward the end of the range. At the end, turn right, ride through the gate (*point out*) and down the perimeter.
2. Ride to the right of the first cone, left of the second, and continue weaving past all the cones without hitting or skipping a cone or putting your foot down.
3. After completing the weave, ride toward the sharp turn (*point out*).
4. Turn your head and execute a tight turn without hitting a boundary or cone or putting your foot down.
5. After completing the maneuver, ride up the center of the range and get back in line.
6. Wait for further instructions.
7. You will lose points in the cone weave for hitting a cone, skipping a cone, or putting your foot down.
8. You will lose points in the sharp turn for not turning your head and to the exit of the turn, touching or crossing any line or cone, or putting a foot down.
9. Do you have any questions?

NOTE: Some students may stop at the gate cones before proceeding to the cone weave; others may not. Either is OK.

SCORING

POINTS

	Once	More
--	------	------

1. Offset Cone Weave

- | | | |
|-------------------|----|----|
| a. Hits cone | -3 | -5 |
| b. Skips cone | -3 | -5 |
| c. Puts foot down | -1 | -3 |

Maximum Penalty Points Allowed -10

2. Sharp turn

- | | | |
|---|----|-----|
| a. Does not turn head and look through turn | | -5 |
| b. Touches boundary line or cone | -3 | -5 |
| c. Puts foot down | -1 | -3 |
| d. Tire crosses boundary line or cone | | -10 |

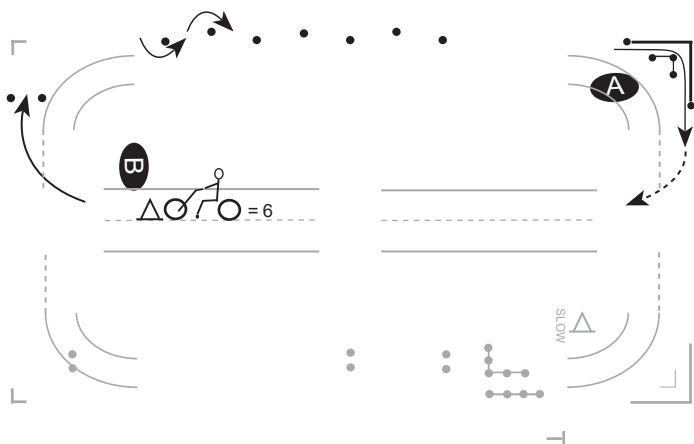
Maximum Penalty Points Allowed -10

NOTE:

- Score if any part of the motorcycle touches a cone, line or boundary.
- A proper head turn includes head turned and looking all the way through the turn. Looking halfway through the turn, looking down, turning head but not looking, or looking but not turning head are all scorable violations.
- Drop bike (21 pts) - front tire passes the gate to rear tire clears all sharp turn boundary lines.

A – Position to score

B – Position to line up



Skills Evaluation 3 - Cornering Proficiency

RANGE
PREP

Strike previous setup. Set 2 curves and one pivot cone.

▲ - 1

● - 12

OBJECTIVE:

You will demonstrate cornering proficiency.

DIRECTIONS:

1. One at a time and on signal, begin riding toward the end of the range. Turn right, round the pivot cone (*point out*) and ride toward the first marked turn, upshifting to 2nd gear. This turn is NOT evaluated.
2. Continue riding around the range to the 2nd marked turn (*point out*) which WILL be evaluated.
3. Stabilize your speed between 15-20 mph.
4. Use both brakes to slow to a suitable entry speed.
5. Turn your head toward the exit and apply steady or slightly increasing throttle through the curve. Ride through the curve as rapidly as you safely can, staying within the boundaries.
6. Continue riding around the perimeter of the range and get back in line.
7. Wait for further instructions.
8. You will lose points for not using both brakes to slow before the turn, not turning your head and looking through the turn, decelerating in the curve, touching or crossing any line or cone, or going too slowly through the curve.
9. Do you have any questions?

SCORING**POINTS**
Once More

- | | | |
|--|----|-----|
| 1. Does not use both brakes to slow | | -5 |
| 2. Does not turn head to look through turn | | -5 |
| 3. Decelerates in curve | | -3 |
| 4. Touches boundary line or cone | -3 | -5 |
| 5. Tire crosses boundary line | -5 | -10 |
| 6. Turns 1.80 – 1.90 | | -3 |
| 7. Turns 1.91 or over | | -5 |

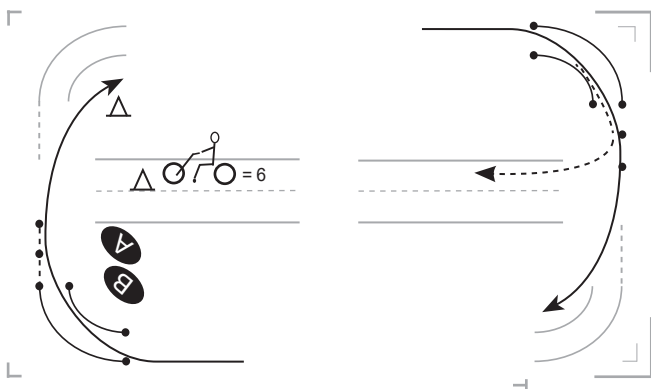
Maximum Penalty Points Allowed -10

NOTE:

- Score if any part of the motorcycle touches a cone, line, or boundary.
- Riders not meeting the speed requirements are not given a second chance.
- Timing is from when the front tire enters the curve (painted line) to when the front tire exits the curve (end of solid painted line).
- The boundary includes the 20 feet past the end of the painted curve.
- Deceleration includes any loss of speed while in the painted curve (late roll-on, clutch in, or rolling off the throttle). Watch for fork compression and extension.
- A proper head turn includes head turned and looking all the way through the turn. Looking halfway through the turn, looking down, turning head but not looking, or looking but not turning head are all scorable violations.
- Drop bike (21 pts) - front tire at 20' before curve entrance to rear tire past third outside curve cone.

A – Position to evaluate

B – Timing position



Skills Evaluation 4 - Quick Stop

RANGE PREP
▲ - 2
● 2

Strike previous setup. Set large cones for start/stop points (same as Exercise 14) and rotate to blank side. Set the braking timing zone (2).

OBJECTIVE:

You will stop the motorcycle as quickly and safely as possible.

DIRECTIONS:

1. One at a time and on signal, ride toward the start cone (*point out*) and stopping area at about 15 mph in 2nd gear.
3. Maintain your speed.
4. When your front tire reaches the large cone (*point out*), stop in the shortest distance possible, downshifting to 1st gear.
5. Remain stopped until your distance is measured, then return up the center of the range and get back in line.
6. Wait for further instructions.
7. You will lose points for not using both brakes, not downshifting to first gear, or stopping beyond the standard for your speed.
8. Do you have any questions?

NOTE: Some students may stop at the start gate before proceeding to the stopping area; others may not. Either is OK.

TIMING CHART: 44-FOOT TIMING ZONE

SECONDS	STANDARD (FEET)
1.20 - 1.24	34
1.25 - 1.29	32
1.30 - 1.35	30
1.36 - 1.42	27
1.43 - 1.49	25
1.50 - 1.57	23
1.58 - 1.66	20
1.67 - 1.76	18
1.77 - 1.87	16
1.88 - 1.99	14
2.00 - 2.14	13
2.15 - 2.30	11
2.31 - 2.50	10
2.51	9

SCORING

POINTS

- | | |
|---|-----|
| 1. Does not use both brakes | -5 |
| 2. Does not downshift to 1 st gear | -1 |
| 3. Stops beyond standard (per foot) | -1 |
| 4. Does not attain proper speed, 2 nd attempt | -10 |
| 5. Begins braking in timing zone, 2 nd attempt | -10 |

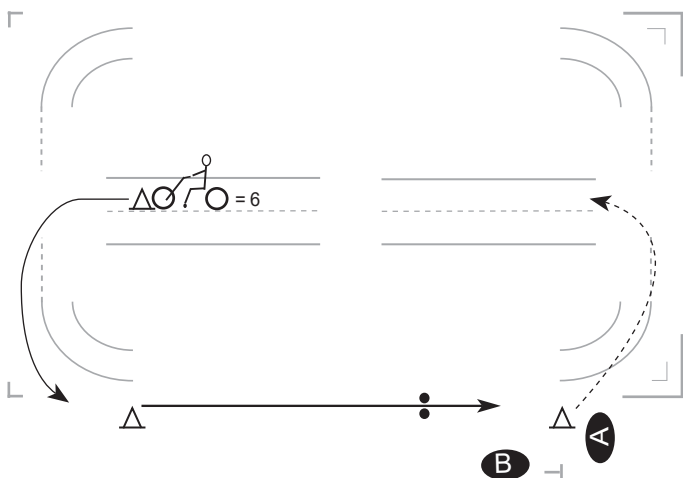
Maximum Penalty Points Allowed -10

NOTE:

1. A second attempt is authorized in the quick stop maneuver only under the following conditions:
 - a. Speed too fast – under 1.20 seconds and stops beyond 34' standard
 - b. Speed too slow – over 2.51 seconds
 - c. Braking in the timing zone (brake light or obvious and significant fork compression more than 2 feet before reaching the end of the timing zone - a slight roll-off is not considered braking)
2. Riders who ride too fast (under 1.20 seconds) and stop within the standard (34' or less) do not get a second attempt.
3. Score stopping distance at the leading edge of the front tire (if in between marks, score the next highest number).
4. Drop bike (21 pts) - front tire passes timing cones until motorcycle comes to full stop or rider loses control at full stop in the braking chute.

A – Position to score

B – Timing position



STAGING:

Direct riders to return to staging. Let the students know the Skills Evaluation is over.

Range Completion and Debrief

Individual Debriefs

- Passed or did not pass
- Identify strengths in their riding skills
- Identify areas in which they need more practice
- Identify appropriate “next step” in their training
- If students want more specifics, ask them to wait until class is dismissed
- If the student did not pass (and qualifies for a retest), advise them the **STAR** Office will contact them in one week to allow paperwork to arrive and get processed.

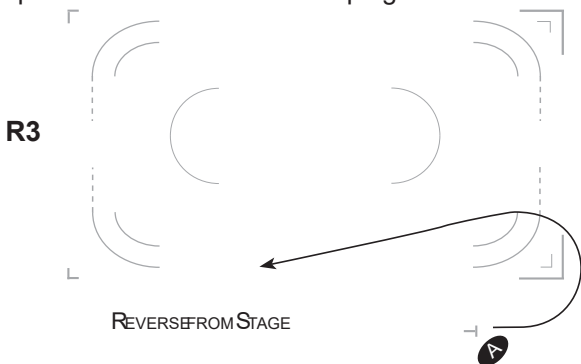
On-Range Graduation

Instructor Note: Identify possible candidates, provide handout with web resource. ID potential candidates on the course roster

- Thank students for participating
- Inform students of other **STAR** courses available:
 - Enhanced Street Skills (Range-only course includes faster speed cornering and maneuvering, body position, trail braking, etc.)
 - Enhanced Control Skills (Range-only course includes more practice of slow-speed tight maneuvers and is built off of Police Motor Officer Training)
 - Enhanced 2-Up Skills (Range-only course for riders and their passengers to help each pair become more comfortable with the unique aspects of riding with someone)
 - Moto Skills Challenge (On-range event designed to challenge you and make you practice a wide variety of skills with two practice sessions and optional time trials against the clock/course)
- Dismiss

R3 reverse from staging:

- Direct lead rider to “ride toward end of the perimeter and make a sweeping left U-turn.”



TURNS FROM A STOP

1. Both feet down; clutch in
2. Turn head and look to new path
3. Turn handlebars full lock in that direction
4. Lean the bike - support weight with inside leg
5. Ease out the clutch smoothly
6. Students repeat Steps 1-5 one or two times on instructor direction

WHAT TO COACH

- Bars turned full lock
- Lean bike
- Smooth clutch release

Range Principles

RANGE CARDS

- Read the **Exercise Title, Objectives, and Directions** for each exercise. Don't make additions.
- Directions and Reminders are read with students off the bikes and gathered together.
- Limit verbal directions for reversals to what is in quotation marks in Reversal Procedures. If no verbal instruction is printed, none is required.

DEMOS

- Show accurate technique and timing.
- Students observe demos from the staging area.
- POT (path of travel) matches what the students will ride. Reversals are not demonstrated.
- Limit narration during demos.

STAGING

- Always cut engine power once safely stopped, then turn ignition to OFF.
- Enter – Hold “stop” signal until all riders are stopped; direct riders to cut off engines. It is not necessary to move forward to “catch” riders. Be ready to step up to assist if needed.
- Ensure that there is 2-3' of space between bikes (nose to tail). OK to tell students.
- Exit – Ensure students are ready to go before sending from staging. Direct first rider; allow remaining students to exit on their own.
- Split exercises - Waiting riders move forward. If dismounted to watch, stand right (outside) of staging area; maintain a clear escape route for incoming riders. Instructor stands at the tail of the line of parked motorcycles to park incoming riders.
- Be in position to assist and direct entry and exit.

VERBAL COACHING

- Prioritize for
 1. Safety
 2. Exercise main objective (“What to Coach”)
- Limit to 1-2 items, presented in a positive manner.
- Brief and concise, typically limited to 3-5 seconds.
- Limit narration in staging during split exercises.

Range Principles

SIMULATED COACHING

- Large enough to be seen from across the range.
- Smooth motions.
- Consistent.
- Early enough that student can respond to signals.

EXERCISE TIME

- Run exercises for full time allotted.
- Exercise time includes:
 - Striking and setting cones as appropriate
 - Objective and Directions
 - Demo (when appropriate)
 - Evaluation of Understanding
 - Exercise activity
 - Staging
 - Debrief
- Allow for 2 to 2 ½ minutes to stage and debrief.

RANGE CONTROL

- Students in front of Instructors at all times (unless otherwise specified).
- Students stay within 10' of perimeter at all times.
- Be aware of where all students are, all the time.
- No surprises for students.
- Coordinate with other Instructor regularly.

INSTRUCTOR POSITION

- Place yourself so:
 - You can see/control entire range and coach for safety at all times.
 - If students must pass behind your back, it is only for a brief moment.
- If you need to move from your position to assist a student to meet a specific objective, return to your coaching position as soon as possible.

INSTRUCTOR PROFICIENCY

- Instructors should routinely and independently ride exercises to reinforce timing, technique and performance.

SPEED

- Coach speed that is designated within each exercise.

The **STAR** Mission:

We share knowledge and skills to make
motorcycling safer.

Our Values:

Integrity

Service

Excellence



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