## MSF Learn-to-Ride Curricula



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The Human Factors Central Thread of RETS: 5 Core Questions

1. What is the primary cause of rider crashes?

- Interaction of factors

2. What is a good rider?

- One who reduces contributing factors

3. How does a good rider reduce factors?

- Applies a strategy-S.E.E. (Search-Evaluate-Execute)

4. How long does it take to reduce risk?

- It's a decision away!

5. What is the primary challenge to be safe?

- Choose to ride within personal and situational limits
$\qquad$
- Being mindful



# <div class="inline-tabular"><table id="tabular" data-type="subtable">
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Rider Knowledge
Rider Skill
Perceptual Ability in Traffic
Degree of Cooperation in Traffic
Likelihood of Being in a Crash
Emotional Commitment To Safety

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## Transitional RiderCoach Prep

(T-RCP)

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## Pre-Riding Quiz

## Directions: Respond to the following questions and statements.

1. I am able to ride a bicycle.
2. T-CLOCS refers to:
a. A pre-ride inspection routine.
b. An engine pre-start routine.
c. Steps to mount and dismount a motorcycle.
d. Having 360 -degrees of visual awareness.
3. FINE-C refers to:
a. A pre-ride inspection routine.
b. An engine pre-start routine.
c. Steps to mount and dismount a motorcycle.
d. Performing maintenance checks before each ride.

Answer $\qquad$
4. The benefits of proper riding gear include:
a. Protection, visibility, and style.
b. Protection, comfort, and visibility.
c. Fashion and protection.
d. Color coordinating with a motorcycle.

Answer $\qquad$
5. Which is true about a motorcycle helmet?
a. There are no standards for motorcycle helmet construction.
b. It makes it harder to see and hear important factors in traffic.
c. It helps prevent injury from the number one cause of crash deaths.
d. A bicycle helmet is just as good.

Answer $\qquad$
6. When you squeeze the clutch lever:
a. Engine power is removed from the rear wheel.
b. You cause the motorcycle to speed up.
c. You cause the motorcycle to change gears.
d. The engine is likely to stall.
7. When stopping, squaring the bars keeps the motorcycle upright and easier to hold up.

Yes $\qquad$ No $\qquad$
8. From the image below, place the number of the control in the space provided.

$\qquad$

Select Factors - At an Intersection

| $1$ <br> Rider | $2$ <br> Motorcycle | $3$ <br> Roadway/Environment |
| :---: | :---: | :---: |
| 1. Fatigue <br> 2. Distracted <br> 3. Speed too fast <br> 4. Inattention <br> 5. Poor lane positioning <br> 6. Too close to center line <br> 7. Too close to parked cars <br> 8. Not looking far enough ahead <br> 9. Target fixating <br> 10. No helmet <br> 11. High BAC <br> 12. Affected by medication <br> 13. Showing off <br> 14. Trying to beat a yellow light <br> 15. Looking at sidewalk activity | 1. Bike too large for rider <br> 2. Bike too powerful for rider <br> 3. Under-inflated tires <br> 4. Worn tires <br> 5. Dry-rotted tires <br> 6. Sticky throttle <br> 7. Missing front brake lever <br> 8. Worn rear brakes <br> 9. Broken brake light <br> 10. Headlight out <br> 11. Overloaded <br> 12. Loose tank bag <br> 13. No turn signals <br> 14. Bent handlebars <br> 15. No mirrors | 1. Sun glare <br> 2. Pedestrian crosswalk <br> 3. Construction <br> 4. Dip in road surface <br> 5. Oncoming driver not paying attention <br> 6. Driver on cell phone <br> 7. Debris on surface <br> 8. Downhill grade <br> 9. Malfunctioning traffic signal <br> 10. Parked car pulls out <br> 11. Night <br> 12. Manhole covers in path <br> 13. Raining <br> 14. Slick surface <br> 15. Foggy conditions |

Crashes usually consist of an interaction of factors. Eliminating just one factor has the potential to prevent a crash. There are many more than these 45 factors, and potential combinations number in the thousands. A strategy to reduce risk must be ever-present.

Select Factors - In a Curve

| $1$ <br> Rider | $2$ <br> Motorcycle | $3$ <br> Roadway/Environment |
| :---: | :---: | :---: |
| 1. Speed too fast <br> 2. Inattention <br> 3. Poor lane positioning <br> 4. Too close to center line <br> 5. Too close to shoulder <br> 6. Not looking far enough ahead <br> 7. Target fixating <br> 8. Fatigue <br> 9. No helmet <br> 10. High BAC <br> 11. Distracted <br> 12. Looking at the scenery <br> 13. Affected by medication <br> 14. Showing off <br> 15. Trying to keep up with others | 1. Bike too large for rider <br> 2. Bike too powerful for rider <br> 3. Dry-rotted tires <br> 4. Worn tires <br> 5. Under-inflated tires <br> 6. Sticky throttle <br> 7. Tire blowout <br> 8. Engine out of tune <br> 9. Bent frame <br> 10. Too much play in swing arm <br> 11. No mirrors <br> 12. Bent handlebars <br> 13. Overloaded <br> 14. Worn rear brakes <br> 15. Brake fade on downhill grade | 1. Sun glare <br> 2. Dip in road surface <br> 3. Construction in area <br> 4. Bump in road surface <br> 5. Vehicle pulls out from shoulder <br> 6. Other driver on cell phone <br> 7. Oncoming driver not paying attention <br> 8. Debris on surface <br> 9. Downhill grade <br> 10. Off-camber surface <br> 11. Night <br> 12. No painted lines <br> 13. Raining <br> 14. Unmarked decreasing radius curve <br> 15. Foggy conditions |

Crashes usually consist of an interaction of factors. Eliminating just one factor has the potential to prevent a crash. There are many more than these 45 factors, and potential combinations number in the thousands. A strategy to reduce risk must be ever-present.

## Driving Tendencies

Directions: Place an $X$ along the line in a position that best describes your regular car driving tendencies. Imagine how someone who knows you well might score you.


People tend to drive as they live, and most drivers rate themselves as above average. Drivers who are generally safety-minded when driving will likely be safety-minded when riding. Warning: A temporary or momentary lapse to the left side can have negative results.

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Date \& Initials $\qquad$

## Vision and Reaction Time Score Sheet

(non-medical learning activity)

## Visual Acuity

Visual acuity refers to clearness of vision. Normal visual acuity is commonly referred to $20 / 20$ meaning you see at 20 feet what a person with normal vision sees at 20 feet. This number is used for both eyes or for each eye individually. If the second number is higher, like 20/40, this indicates weaker visual acuity (you see at 20 feet what a person with 20/20 visual acuity can see at 40 feet). If the second number is lower, like $20 / 15$, this indicates better-than-average visual acuity (you see at 20 feet what a person with $20 / 20$ visual acuity sees at 15 feet).
Visual acuity: Both eyes: $\qquad$ Left eye: $\qquad$ Right eye: $\qquad$

## Peripheral Vision

Peripheral vision refers to how well you see to the sides while looking straight ahead. While central, clear vision is a three-degree cone (and our eyes move so quickly our surroundings mostly look in focus), peripheral vision can exceed 90 degrees per side.

| Peripheral vision (first see the card): | Either side |
| :--- | :--- |
| Useful field of view (see color of card): | Either side |
| Central vision (see actual card): | Either side |
| (Less than 140 degrees of total peripheral vision is considered tunnel vision.) |  |

## Reaction Time

Simple reaction time refers to how quickly a person responds to a stimulus that is anticipated. Reaction time varies among individuals and is affected by perception time. One way to check a person's general reaction time is to catch a ruler dropped between two fingers. Where the ruler is caught indicates reaction time. Try 10 times to get 10 scores. The average catch is between the 5 - and 7 -inch marks.


## Serious About Safety?

## As a car or truck driver, respond to the following statements.

1. I signal for turns and lane changes.
2. I stop completely at stop signs.
3. I stop completely before turning right on red.
4. I make decisions based on safety.
5. Others consider me a courteous driver.
6. I turn my head to check blind spots for lane changes.
7. I buckle up.
8. I honk at bad drivers.
9. I use my cell phone to talk or text.
10. I need to brake hard or swerve when driving normally.
11. I am in a hurry when I drive.
12. My friends crash and get tickets.

## Discussion point:

Anything but a Yes on 1-7 and a No on 8-12 may indicate a less than ideal emotional commitment to safety.

Agree or disagree? Why?

## Safe Riding versus Risky Riding

In some ways, we have a voice that informs us as to what is safe and what is not. For each of the motorcycle riding behaviors below, place in the space provided an $\boldsymbol{S}$ for the safety-related voice or an $\boldsymbol{R}$ for the risk-related voice.

1. $\qquad$ Take a curve at the suggested advisory speed.
2. $\qquad$ Keep up with faster-riding friends in curves.
3. $\qquad$ Ride at the speed limit on a freeway.
4. $\qquad$ Stop beyond the stop line at an urban intersection.
5. $\qquad$ Aggressively challenge a decreasing radius curve.
6. $\qquad$ Ride at 72 mph on a freeway where speed limit is 65 mph .
7. $\qquad$ Honk at a driver who cuts you off in traffic.
8. $\qquad$ Use a following distance of less than two seconds.
9. $\qquad$ Pass in a no-passing zone.
10. $\qquad$ Ride at a speed where traffic builds up behind you.
11. $\qquad$ Ride past a blind intersection without slowing.
12. $\qquad$ Use turn signals for turns and lane changes.
13. $\qquad$ Roll through a stop sign.
14. $\qquad$ Use high beams when an oncoming driver doesn't dim theirs.
15. $\qquad$ Park in a handicapped parking space.
16. $\qquad$ Use the street like a personal race track.
17. $\qquad$ Ride while thinking about work issues.

We become what we think about, and what we think about is shown by our behavior. Although there may be no specific answer for the voice that dominates in the above behaviors, a rider likely knows the difference between proper and improper choices.

## Key Safety Concepts

## Situational Awareness 1: Curve

Group 1: What key factors could interact to form a collision trap or provide an escape path?
Group 2: In what way do the 2-4-12 second visual leads apply?
Group 3: How does search-setup-smooth apply?

## Situational Awareness 2: Sharp Turn

Group 2: What key factors could interact to form a collision trap or provide an escape path?
Group 3: In what way do the 2-4-12 second visual leads apply?
Group 1: How does search-setup-smooth apply?

## Situational Awareness 3: Curve

Group 3: What key factors could interact to form a collision trap or provide an escape path?
Group 1: In what way do the 2-4-12 second visual leads apply?
Group 2: How does search-setup-smooth apply?

## Situational Awareness 4: Intersection

Group 1: What key factors could interact to form a collision trap or provide an escape path?
Group 2: In what way do the 2-4-12 second visual leads apply?
Group 3: How much of a time-and-space safety margin exists?

## Situational Awareness 5: Intersection

Group 2: What key factors could interact to form a collision trap or provide an escape path?
Group 3: In what way do the 2-4-12 second visual leads apply?
Group 1: How much of a time-and-space safety margin exists?

## Situational Awareness 6: Curve

Group 3: What key factors could interact to form a collision trap or provide an escape path?
Group 1: In what way do the 2-4-12 second visual leads apply?
Group 2: How does search-setup-smooth apply?

## Traffic Controls \& Roadway Features Roadway Users Surface Conditions Escape Paths

## Values, Judgment, and Choices

Directions: For each behavior, note some reasons for a rider's choice. Then complete the statement in the last column.

| Rider Behavior | Reasons to do it | Reasons not to do it | My choice is to... |
| :---: | :--- | :--- | :--- |
| 1. Wear a quality helmet |  |  |  |
| 2. Wear full riding gear in <br> addition to a helmet |  |  |  |
| 3. Be overly aggressive in |  |  |  |
| curves |  |  |  |
| 4. Ride buzzed |  |  |  |
| 5. Ride distracted |  |  |  |
| 6. Be a low-risk rider |  |  |  |
| 7. Stunt in public |  |  |  |
| 8. Be affected by peers |  |  |  |

