The MSF BRC (updated)
Illinois Motorcycle Safety Winter Conference 2014
Springfield, IL

A learn-to-ride education and training safety course
Who Is MSF?

We stand behind our work.

Motorcycles

Polaris

Motorcycles

Quality, Results, Innovation, Renewal

1973-2014
Current Initiatives: Training Systems

BRC (updated) Implementation
RiderCoach/Trainer Certification
BRC2 (updated)
MSF Street Strategies eCourse
3WBRC-SW Program
Professional Development Center
BRC (updated) 2nd printing
Motorcycle Safety Foundation’s
SERIOUSLY SAFE TOP TEN LIST

- Take formal training and get licensed.
- Wear all gear when riding.
- Ride unaffected by alcohol or drugs.
- Assume others don’t see you.
- Maintain 360° awareness.
- Create a space cushion all around.
- Enter intersections and curves with caution.
- Practice emergency braking and swerving.
- Save aggressive riding for the racetrack.
- Refresh your skills and knowledge regularly.
First, what is a Level IV rider?

Level 0 = Self taught and/or rides without a license
Level I = Completes a learn-to-ride course & licensed
Level II = I + Completes additional courses
Level III = II + Reflects on experiences
Level IV = III + Lifelong learner & subconsciously safe
RiderCoach Levels

**Level 0** = A Level I - IV rider and not yet a RiderCoach

**Level I** = Delivers the BRC per minimum standard

**Level II** = I + studies and reviews the RCG

**Level III** = II + understands SAM principles (how people learn)

**Level IV** = III + mastery/excellence (experience & reflection)
<table>
<thead>
<tr>
<th>Item</th>
<th>You</th>
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<tbody>
<tr>
<td>Curriculum knowledge: breadth and depth</td>
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<tr>
<td>Empathy with novice riders and their learning</td>
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<tr>
<td>Ability to observe, analyze, coach, reinforce</td>
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<td>Emotional commitment to rider education</td>
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<td>Safety as a priority in personal riding</td>
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<td>Classroom facilitation skills</td>
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The MSF Basic *RiderCourse* (updated)

A learn-to-ride education and training safety course
Basic RiderCourse (updated)
• Additional content: behavioral aspects, self-assessment, perception
• Online component + interactive live classroom
• Range-first configuration (2014)

Basic RiderCourse (BRC: 2001)
• Principles of Safety, Learning and Motor Skills Development
• Input from Invested and Divested Professionals
• Experience, Research and Literature Review

Motorcycle RiderCourse: Riding and Street Skills (MRC:RSS 1986)
• Motorcycle Accident Cause Factors and Identification of Countermeasures (Hurt Report)
• Motorcycle Rider Course Field Study

Motorcycle Rider Course (MRC: 1976)
• Updated Instructional Objectives
• Photographic Analysis

Beginning Rider Course (BRC: 1974)
• Motorcycle Task Analysis

MSF Learn-to-Ride Curricula
Training undoubtedly is useful in teaching the skills needed to operate a motorcycle.

But most crashes are caused by poor judgment, poor attitudes, or poor higher-order crash avoidance behavior (such as lack of proper search techniques), not by poor operating skills, and training for novice riders has not been effective in improving these higher-order behaviors.

(Government Report)
Run-Off-Road Crashes
(all vehicles; motorcycles not included)

ROR crashes accounted for 64.4 percent of all single-vehicle crashes.

NHTSA, July 2011 Report
Crash Causation
(Critical Reasons Attributed to Driver)

41% -- Recognition Errors
- Inattention
- Internal or External Distractions
- Inadequate Surveillance

34% -- Decision Errors
- Driving Aggressively
- Driving Too Fast

10% -- Performance Errors
- Overcompensation
- Improper Directional Control
Physical

Mental / Perceptual

Social

Emotional

I feel

I think
Skill Scale

Risk Scale

High

Low

High

Low

Average
Risk and Skill At Same Level

- High risk/high skill: At the Limit
- Moderate risk/Moderate skill: At the Limit
- Average risk/Average skill: At the Limit
- Mild risk/Weak skill: At the Limit
- Low risk/Poor skill: At the Limit

Overall & Moment-to-Moment
Ultimate Purpose of Safety Programs
Rider Self-Assessment

Put a number from 1 (low) to 10 (high) in the space provided.

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1. Preliminary online or personal study (basic content)
2. Qualification test (online or in-person on paper)
3. First half of range exercises
4. Classroom: behavioral aspects
5. Second half of range exercises + skill test
6. Classroom: behavioral aspects + knowledge test
7. Next steps
Delivery Options

**e3 x 5 x 10**

**5 x 5 x 10**

**5 x 10**

Wisconsin, Kansas, Iowa, Nebraska, Connecticut, Delaware, Florida, West Virginia, Maryland, Michigan, Tennessee, Nevada, Oklahoma, Georgia, Kentucky, Arkansas, North Carolina, Military
Delivery: Structured Adaptability

Jurisdiction

Structure
- RERP
- Minimum standards for jurisdiction

Adaptability
- Administrator vision
- Administrator strategy
- State laws, regulations, rules
- Site specific requirements
  - Range size
- Scheduling
- Course names & offerings
  - Transcends minimum standards and maximizes potential

Curriculum

Structure
- Student & RiderCoach materials
- Minimum competencies for novices

Adaptability
- MSF Basic eCourse or formal Level I classroom
- Formal Level II classroom
- Range first
- State-specific content
- Best practices
- Options for knowledge testing
  - Transcends minimum rider outcomes and maximizes rider potential
BRC (updated): Level I Topics

eCourse or formal instruction

1. Course Introduction
2. Motorcycle Types
3. Controls and Equipment
4. About Basic Operation
5. Preparing to Ride
6. Risk and Riding
7. Basic Street Strategies
8. Strategies for Common Situations
9. Basics for Emergencies
10. Special Riding Situations
11. Rider Impairments
12. Select Topics
13. Key Safety Concepts
14. Knowledge Test
15. Next Steps
16. Range Preparation
1. Pre-riding Quiz
2. Constructing an Intersection Crash
3. Constructing a Curve Crash
4. Driving Tendencies
5. Knowing Where to Look and What to Look For
6. Visual Acuity - Peripheral Vision - Useful Field of View - Central Vision - Reaction Time
7. Serious About Safety?
8. Safe vs. Risky Riding Behaviors
9. Key Safety Concepts (Situation Awareness)
10. Values, Judgment, and Choices
BRC (updated): Riding Exercises and Skill Test

1. Motorcycle Familiarization
2. Using the Friction Zone
3. Starting and Stopping Drill
4. Shifting and Stopping
5. Basic Skill Practice
6. Pressing to Lean and Adjust Lean
7. Stopping More Quickly
8. Stopping Distance Demonstration
9. Limited-Space Maneuvers
10. Stopping in a Curve
11. Curve Judgment
12. Multiple-Curves and Lane Changes
13. Crossing an Obstacle and Swerving
14. Skill Practice

Skill Test

1. Cone Weave and Normal Stop
2. Turn From a Stop and U-Turn
3. Quick Stop
4. Obstacle Swerve
5. Curve
BRC (updated)

Ex. 1

Motorcycle Familiarization

• Follows preliminary admin activities
  • Registration
  • Waiver
  • Written Qualifying Test (optional)
• 35-40 minutes
• Static demo
Ex. 2

Using the Friction Zone

• 35-40 minutes
• 3 parts
• Simulated-practice demo
• Simulated practice
• Riding demo
BRC (updated)

Ex. 3

Starting & Stopping Drill

• 30-35 minutes
• 2 parts
• Riding demo
BRC (updated)

Ex. 4

Shifting & Stopping

- 35-40 minutes
- Simulated-practice demo
- Simulated practice
- Riding demo
BRC (updated)

Ex. 5

Basic Skill Practice

• 30-35 minutes

• 2 parts (full group & split)
  • Part 1: full group for perimeter turns, middle and weave
  • Part 2: split group for perimeter

• Simulated-practice demo

• Simulated practice

• Riding demo

• Reversal for part 2
BRC (update)

Ex. 6

Pressing to Initiate and Adjust Lean

- 30-35 minutes
- Simulated-practice demo
- Simulated practice
- Riding demo
- Split & full group
- Reversal
BRC (updated)

Ex. 7

Stopping More Quickly & Tight Turns from a Stop

• 30-35 minutes
• 2 parts
• Simulated-practice demo
• Simulated practice
• Riding demo
BRC (updated)

Ex. 8

Stopping Distance Demonstration

- 10-15 minutes
- Riding demo only

NOTE for 3rd run: Chalk intersection marks based on stopped motorcycle
BRC (updated)
Ex. 9
Limited-Space Maneuvers

• 35-40 minutes
• Simulated-practice demo
• Simulated practice
• Riding demo
• Perimeter turn from a stop
BRC (updated)
Ex. 10
Stopping in a Curve

- 30-35 minutes
- 2 parts
  - Regular
  - Quick
- Simulated practice for part 2
- Riding demo
BRC (updated)

Ex. 11

Curve Judgment

• 35-40 minutes
• Riding demo
• Repeated split
• Reversal
• Groups of 4 or less
• Start from 2 lines
• Allows adjustments to groups
BRC (updated)

Ex. 12

Multiple Curves & Lane Changes

• 35-40 minutes
• (No simulated-practice demo)
• Simulated practice
• Riding demo
• Reversal
BRC (updated)

Ex. 13

Crossing an Obstacle & Swerving

- 25-30 minutes
- 2 parts
- Simulated practice
- Riding demo
- Split
BRC (updated)
Ex. 14
Skill Practice

• 20-25 minutes
• Riding demo
• U-turns (left / right)
• Stop box
• On one side: quick stop
• On other side: swerve & stop
• Tight turn from start points
Skill Test

RST + Curve
Licensing Test: MSF Rider Skill Test (RST)

30' x 75'

Stalling – Cone Weave – Normal Stop – Turn from Stop – U-turn – Quick Stop – Obstacle Swerve
MSF RST vs. BRC Skill Test

Approximate Size Comparison
Evaluation 1
Cone Weave &
Normal Stop

Weave
• Skips or hits cone
• Puts foot down

Stop
• Skids
• Boundary violation
Evaluation 2

Turn from a Stop & U-turn

TFS

- Boundary violation
- Puts foot down

U-turn

- Boundary violation
- Puts foot down
Evaluation 3

Quick Stop

Time
Distance
Standard
2\textsuperscript{nd} attempt
Evaluation 4

Obstacle Swerve

Path

2nd attempt

• Wrong direction

• Time
Evaluation 5

Curve

Path

Time
Unsuccessful Score

- > 10 in A
- Intentional Unsafe Act
- Falls / Drops Motorcycle
- Stalls Engine > 3 Times (A only)
- Fails to Follow Instructions
- Overall (A+B): < 16
Individual Score Sheet

### Part A

**Eval #1:** Cone Weave and Normal Stop
- Cone Weave: Slips or Hits Cone: 3 5
- Normal Stop: Skids: 3
  - Boundary violation: 5

**Eval #2:** Turn From a Stop (TFS) and U-Turn
- TFS: Boundary violation: 3 5
- U-Turn: Boundary violation: 5

**Eval #3:** Quick Stop
- Time: 5
  - Distance: 5

### Part B

**Eval #5:** Curve
- Boundary violation: 5

**Unsuccessful Score**
- Total score < 10 in A: 16
- Intentional Unsafe Act: 16
- Falls / Drops Motorcycle: 16
- Stalls Engine > 3 Times: 16
- Falls To Follow Instructions: 16

**Success < 16 A + B Total Score**

**Student Name:**

### Understanding
- **Scores:** Points are deducted for certain behaviors or outcomes.
- **Quick Stop:** Time and distance are measured for a quick stop.
- **Curve:** Penalties are given for boundary violations.
- **Total Score:** A score less than 16 in A and B combined indicates failure.
- **Extensions:** Extensions are noted for different scenarios, such as stalls.
The MSF Basic *RiderCourse 2* (updated)

An education and training safety course for riders with basic skills
The MSF Basic *RiderCourse 2* (updated)

### License Waiver
- e2 x 3 x 5 (or 5 x 5)
- 8 riding exercises
- Knowledge test
  - *eCourse* or EOC
- Skill test
  - RST + Curve

### Skill Practice
- 4-5 hours
- 10 exercises
BRC2 (updated): Level I Topics

eCourse and Rider Handbook

1. Course Introduction
2. Motorcycle Types
3. Controls and Equipment
4. About Basic Operation
5. Preparing to Ride
6. Risk and Riding
7. Basic Street Strategies
8. Strategies for Common Situations
9. Basics for Emergencies
10. Special Riding Situations
11. Rider Impairments
12. Select Topics
13. Key Safety Concepts
14. Knowledge Test
15. Next Steps
16. Range Preparation
Range Exercises

1. Control at Low Speed
   1.1 Stopping Straight and in a Turn
2. Stopping More Quickly and Tight Turns from Stop
3. Stopping Distance Demonstration
4. Stopping in a Curve
5. Multiple Curves and Lane Changes
6. Limited-Space Maneuvers
   6.1 Low-Speed Decreasing-Radius Curves
7. Avoiding Hazards; Low-Speed Maneuvers
8. Skill Practice
BRC2 (updated)

Ex. 1

Control at Low Speed
BRC2 (updated)

Ex. 1.1

Stopping Straight and in a Turn
BRC2 (updated)

Ex. 2

Stopping More Quickly and Tight Turns from a Stop
BRC2 (updated)

Ex. 3

Stopping Distance Demonstration
BRC2 (updated)
Ex. 4
Stopping in a Curve
BRC2 (updated)

Ex. 5

Multiple Curves & Lane Changes
Limited-Space Maneuvers
BRC2 (updated)

Ex. 6.1

Low-Speed Decreasing Radius Curves
BRC2 (updated)
Ex. 7
Avoiding Hazards; Low-Speed Maneuvers

- Adds signal for quick stop
BRC2 (updated)
Ex. 8
Skill Practice
RiderCoach Certification

1. Application
2. Acceptance and Attendance
3. Pre-Course Assignment
4. MSF Basic eCourse
5. Qualifying Knowledge Test
6. Skill Test
7. BRC Familiarization
8. Peer Teaching and Student Teaching
9. End-of-Course Knowledge Test
10. Qualitative Assessment
Thank You !!

MSF BRC (updated)

2014 Illinois Motorcycle Safety Conference
Springfield, IL
December 10, 2014
CORE PREREQUISITE
How Do People Learn?

While it is imperative to know what skills all riders should have, it is important to know what individual riders need. This means to observe the performance of individual riders, analyze the quality of performance, coach to facilitate improvement, and reinforce progress by acknowledging success. (p41)