



# **DE Classroom Outline**

**Intermediate**

**June 10-11, 2017**

## INTERMEDIATE

### SESSION #1

#### DE Objectives

- ▶ Learn
  - ▶ Keep open mind – listen, then apply
- ▶ Strive for progression
  - ▶ Safe speed before fast speed
  - ▶ Prove you deserve to move up
  - ▶ Stay relaxed & comfortable
- ▶ Have fun!

#### Flags

- ▶ Are there to keep you safe
- ▶ You must obey all flags
- ▶ Acknowledge flags

#### Instruction

- ▶ Listen to instructors – they're here to keep you safe and help you learn
- ▶ Instructors have different experiences, so language may be different
- ▶ What to expect:
  - ▶ Verbal instruction
  - ▶ Hand signals
  - ▶ Right-seat steering
  - ▶ Feedback, evaluation, commands and support
- ▶ Safety is #1
- ▶ Objectives for every session – set in classroom, and emphasized by in-car Instructors

#### The Line... What Do We Know?

Reference points:

- ▶ Begin-Braking
- ▶ Turn-in
- ▶ Apex
- ▶ Exit

#### The Line... What Do We Know?

Advantages of a Late Apex:

- ▶ Maintain straightaway speed longer
- ▶ Begin accelerating earlier
- ▶ See through turn
- ▶ More time driving straight, less time cornering

#### The Line... What Do We Know?

Corner Radius vs. Apex:



- ▶ The tighter the corner radius, the later the apex
- ▶ The larger the corner radius, the earlier the apex

### **The Line... What Do We Know?**

In Slow – Out Fast:

- ▶ Corner exit speed is more important than corner entry speed

### **The Line... What Do We Know?**

Corner Priorities:

- ▶ The fastest corner leading onto the longest straightaway.
- ▶ Next fastest...
- ▶ Fastest corner at the end of the longest straightaway.
- ▶ Next fastest...
- ▶ Fastest corner between corners.
- ▶ Next fastest...

### **What Do We Know?**

Off-Track Recovery

### **Mindset**

- ▶ More to be lost than gained by being a little faster
- ▶ Progression is most important
- ▶ Open Mind – listen, apply, learn
- ▶ Smooth is Fast

### **Q & A**

### **On-Track Objectives – Session 1**

1. Warm-up
2. Familiarize with track/learn line
3. Vision – look farther head

### **SESSION #2**

#### **Advanced Use of the Controls**

- ▶ Steering wheel
- ▶ Throttle
- ▶ Brakes
- ▶ Shifter
- ▶ Mirrors

Your Tools...

### **Throttle**

- ▶ Wheelspin
- ▶ Weight transfer
- ▶ Squeeze & Ease



- ▶ The Throttle is NOT an On-Off switch

### **Braking**

- ▶ Maximum braking = Threshold braking
- ▶ Squeeze & Ease
- ▶ The release of the brakes is just as important as the application

### **Steering**

- ▶ The less you turn the steering wheel, the faster you will go
- ▶ Keep steering movement to a minimum
- ▶ Your Steering Wheel is connected to the Throttle & Brake pedal

### **Cornering**

Two areas of control:

- ▶ Directional control (steering wheel)
- ▶ Balance (throttle & brake)

### **Mirrors**

- ▶ Check your mirrors as often as it takes to always know where others are around you...
- ▶ But no more than that

### **Heel & Toe Downshifting**

Brake first - then downshift.

### **Q & A**

#### **On-Track Objectives – Session 2**

1. Focus on smooth/precise control use
2. Seamless transition
3. Minimize input

### **SESSION #3**

#### **Brains or Brawn?**

- ▶ What's driving your car?
- ▶ What percentage of race driving is mental?
- ▶ Brain controls your body, so...

#### **Performance Model**

Sensory Input

Quality In = Quality Out

- ▶ Visual
- ▶ Kinesthetic
- ▶ Auditory



## **Sensory Input**

Quality In = Quality Out

- ▶ More Sensory Input =
- ▶ More References =
- ▶ Fewer Errors =
- ▶ More Speed & Consistency

## **Mental Programming**

Why do you do what you do?

- ▶ Because of your Programming

Why do you NOT do what you want, or are told to do?

- ▶ Your Lack of Programming

## **Mental Programming**

How do you develop mental programming?

- ▶ Physical practice
- ▶ Mental practice:
  - ▶ Mental pre-play
  - ▶ Visualization
  - ▶ Use multiple senses

## **Vision**

- ▶ Look ahead – High Aim Vision
- ▶ Look where you want to go, not where you don't want to go
- ▶ Look through the turns

## **Q & A**

### **On-Track Objectives – Session 3**

1. Sensory Input session – be a Sponge
2. Put whole lap together - consistency
3. Collect mental image of track for tonight's mental replay (visualization)

## **SESSION #4**

### **Performance Driving**

There are 4 keys...

- ▶ Tire, Tire, Tire, Tire

Key to going fast: *Understanding tires*

### **Slip Angle**

- ▶ The difference between the direction the wheel is pointing and the direction the car is traveling is the Slip Angle.

### **Traction Circle**



## **Traction Circle**

- ▶ Maximum acceleration...
- ▶ Maximum braking...
- ▶ Trade off braking for cornering...
- ▶ Maximum cornering...
- ▶ Trade off cornering for acceleration...
- ▶ Maximum acceleration

Overlap your braking, cornering and acceleration forces.

## **Q & A**

### **On-Track Objectives – Session 4**

1. Learn track without cones
2. Build speed
3. Be a Weight Manager - use your car's balance to your advantage

## **SESSION #5**

### **Learning A Track**

#### **The Line...**

Compromises

- ▶ Give up one corner for another?

#### **The Line...**

Priorities

- ▶ The most difficult corner?
- ▶ The fastest corner?

## **Q & A**

### **On-Track Objectives – Session 5**

1. Precision – hit apexes, be smooth
2. Smooth throttle application
3. Letting the car run free - minimum steering input

**HAVE FUN!**