

Porsche Club of America - Chicago Region Driver's Education

Pre-Event Session

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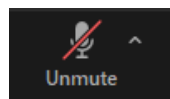
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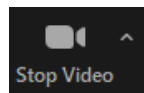
<https://www.4porsche.com>

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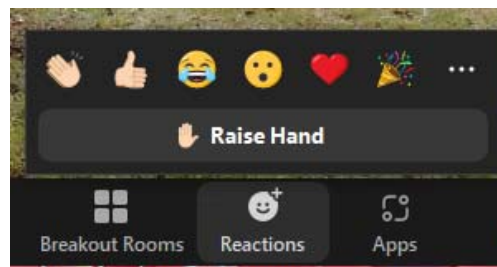
Using Zoom



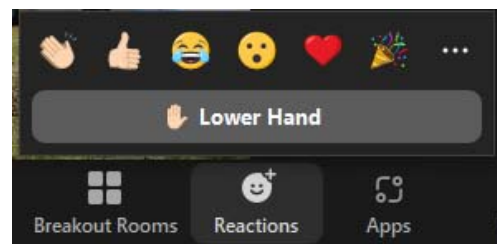
Stay muted unless asking a question



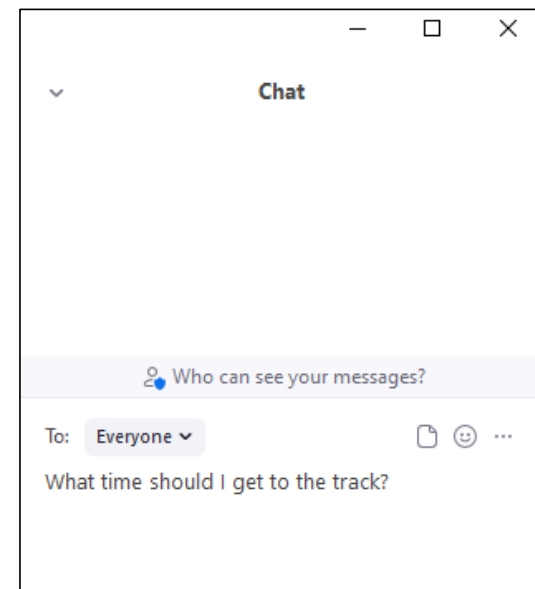
Keep your video on



Raise hand to ask a question



Lower hand once you have been called on



Ask a question using chat

Introduction



John Ruther: *Chief Driving Instructor, Chicago Region*

PCA Past President
Current IMSA license holder
Former Daytona 24 and Sebring 12 Competitor, GT Class
Owner, Northstar Motorsports

Dana Comolli: *Classroom Lead*

PCA National driving instructor
BMW CCA driving instructor
MSF Certified driving instructor

Todd Conforti: *Blackhawk Event Chair*

PCA Chicago Safety Director
PCA Club Racing competitor



Event Goals



- Bring You and Your Car home in One Piece
- Learn new skills
- Have fun
- Gain an appreciation for what it takes to drive around a race track
- Get a glimpse at what your car can do
- Go fast

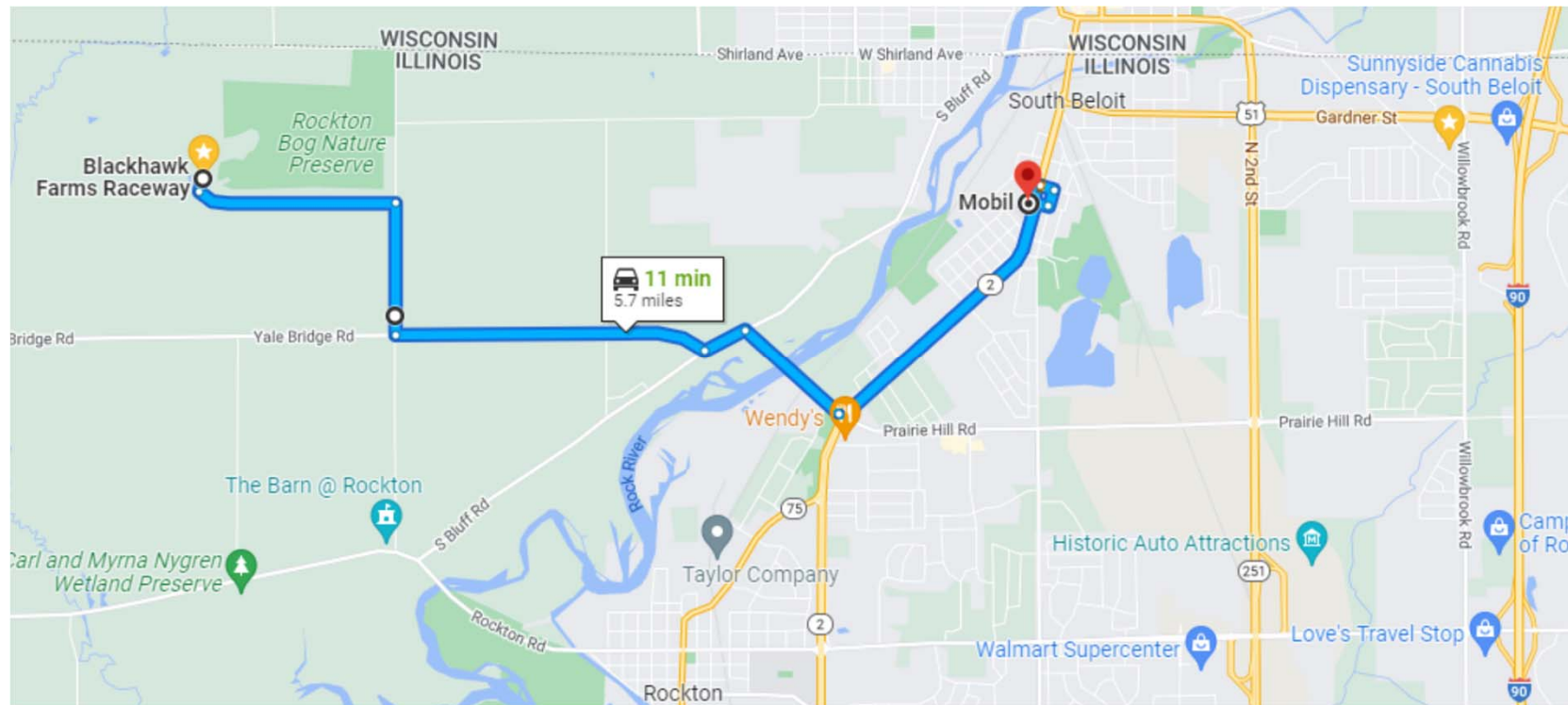


Come Prepared



- Electronically sign the Standard Event Waiver via Clubregistration.net prior to arrival.
- Bring your Driver's License, PCA Membership Card, Credit Card, Cash.
- Fill your tank before you get to the track. There is gas at the track, but it is much more expensive.
- Car numbers must be at least 8" high on both sides of your car and on the hood with a 1 ½" stroke in a contrasting color easily read by the corner workers. Contrasting tape numbers are allowed.
- A tarp to put your things on. Grass is usually wet in the morning.
- A garbage bag to put your floormats and other things in.
- Simple toolkit and a tire pressure gauge is recommended, but optional.
- Small cooler, drinks, and snacks. Lunch will be provided.
- Camp chair (and sun umbrella in summer.)
- Sunscreen.
- You must wear long pants and long sleeved shirt when driving.
- These events are rain or shine, so bring appropriate cover if rain is expected.

Closest Gas Station



Yes, we do mean it – Rain or Shine...

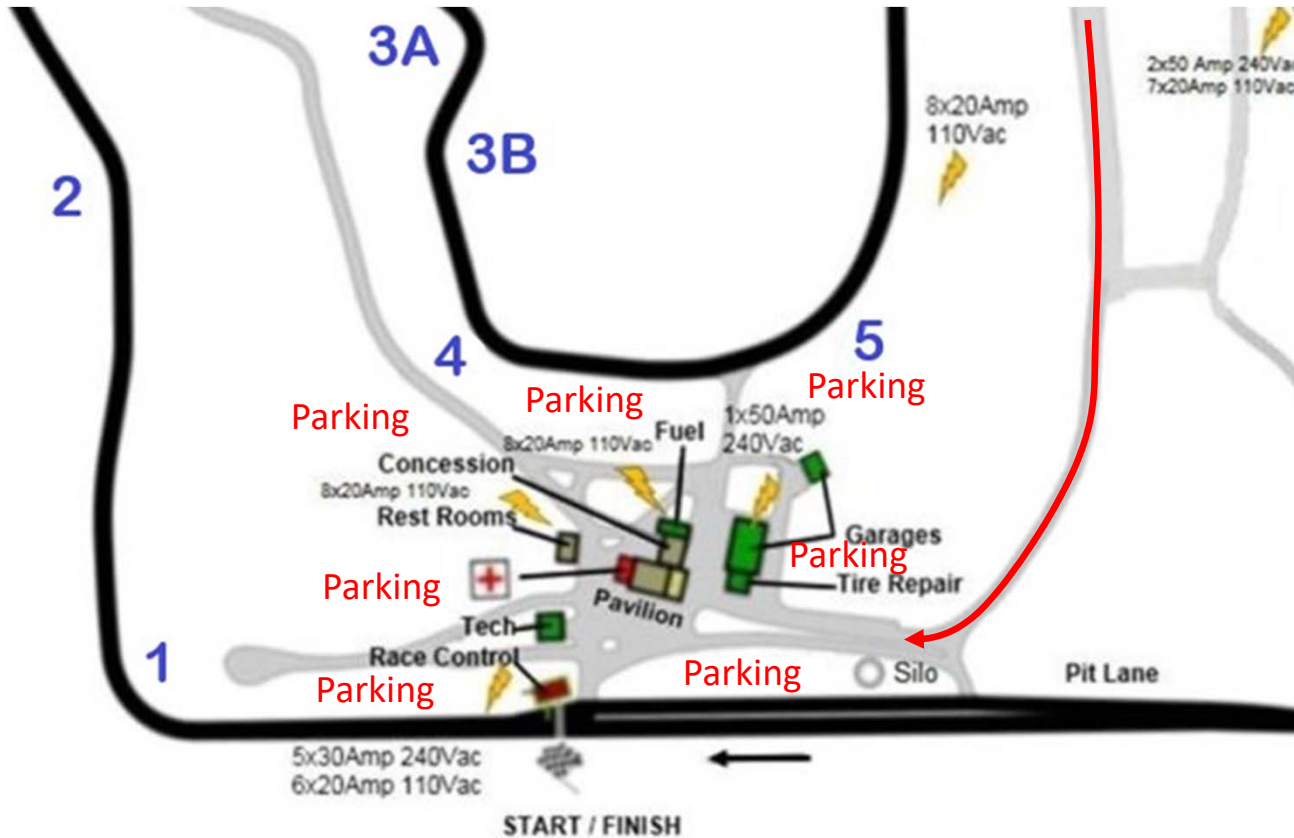


Check-in and Registration



- Park to the right side, allowing space for cars to go in both directions.
- Line up while waiting your turn.
- Electronically sign Standard Event Waivers via Clubregistration.net prior to arrival.
- You will be required to sign the Blackhawk Event Waiver as part of registration.
- All drivers must present a valid drivers license at registration and PCA membership card.
- You will receive a color-coded wristband that must be worn at all times. This indicates your role.

The Paddock



- Speed limit is **15 MPH maximum**
- Find a place to park in one of the areas labeled on the map.
- Maintain 10 feet between cars.



Going Through Tech



- Empty your car and place your stuff in front of your car before going to tech. This includes iPass, phone, floor mats; **EVERYTHING must be removed.**
- Windows must be down.
- Make sure you have applied your car numbers and bring your helmet and have it ready for inspection.
- Place the completed tech sheet under the windshield wiper when you go to tech.
- Line up on the appropriate side based on signage.
- Answer the tech inspector's questions and do whatever they tell you to do.
- Once passed, they will place a sticker on the drivers-side of your windshield and a run-group number in the upper center.
- Return to your parking space when complete.

Other Tech Considerations



- iPhone 14 - Turn off crash notification (calling for 1st responders)
 - Use Settings -> Emergency SOS to disable
 - Better yet, keep the phone in the paddock
 - A False Alarm will result in the 1st responders billing you.
- Lane Change/Braking Notification must be disabled
 - You must be able to demonstrate to the Tech Inspector that you know how to turn this off.
- Verify before EVERY session



Driver's Meeting



- Attendance is **MANDATORY**.
- Event rules will be covered.
- Passing rules will be covered.
- Flags will be covered.
- Any Day-specific items will be covered.
- Student/Instructor Pairings will happen.
- If you don't attend, you will not drive.



Classroom



- Attendance is **Highly Recommended**
- Morning Session – Continuing the information we will be covering tonight
- Afternoon Session – Track discussion covering specific issues at each corner and corner-worker feedback

Questions?



Stating the Obvious...



- Safety is **NUMBER ONE**
 - This hobby is dangerous
 - **VERY BAD** things **CAN** happen
 - Sometimes out of your control!
- **LISTEN** to your instructor
 - **BOTH** of your lives are in **YOUR** hands
 - In the car, the **INSTRUCTOR** is “Pilot in Command”



Instructor / Student Communication



- Many Instructors will use a communicator
- Provides two-way communication via headsets that fit within the helmet
- However, these are not always available and sometimes communicators fail
- That is why we have a standard set of hand signals your instructor can use to guide you as well

Hand Signals – Apply the Brakes



IMAGE © MOTORSPORT SAFETY ACADEMY

Hand Signals - Accelerate



IMAGE © MOTORSPORT SAFETY ACADEMY

Hand Signals – Steering Input



IMAGE © MOTORSPORT SAFETY ACADEMY

Hand Signals – Turn In / Track Out



IMAGE © MOTORSPORT SAFETY ACADEMY

Hand Signals - Straight

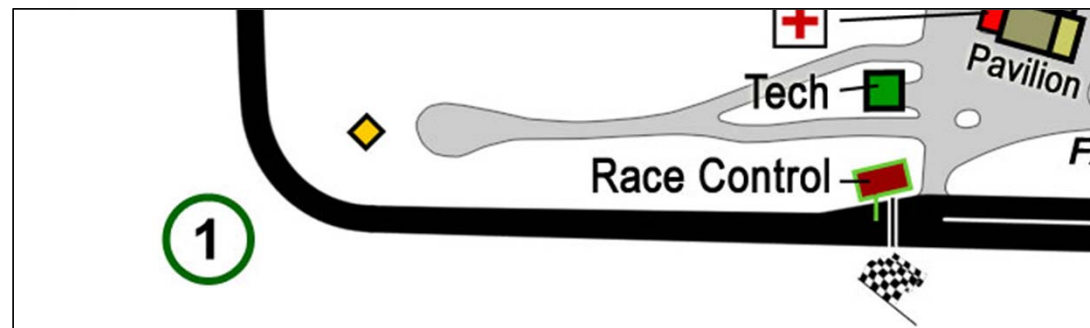
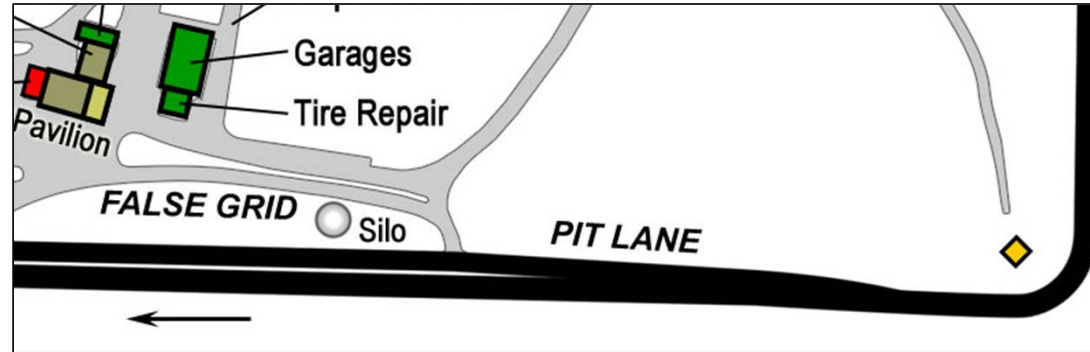
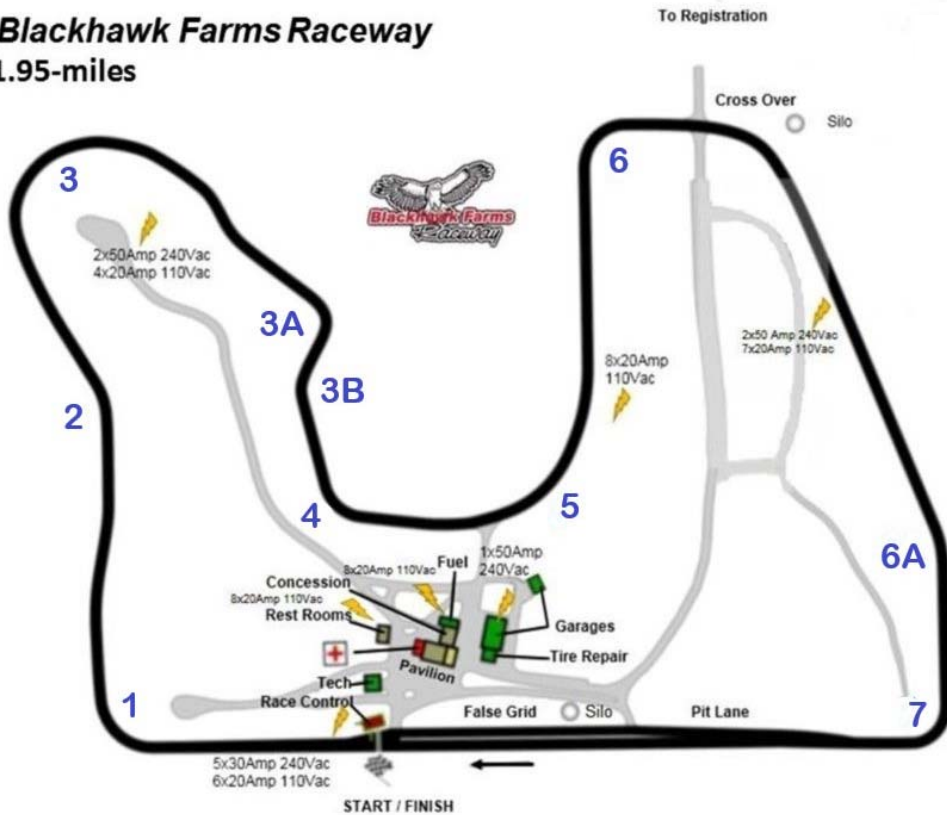


IMAGE © MOTORSPORT SAFETY ACADEMY

Track Map



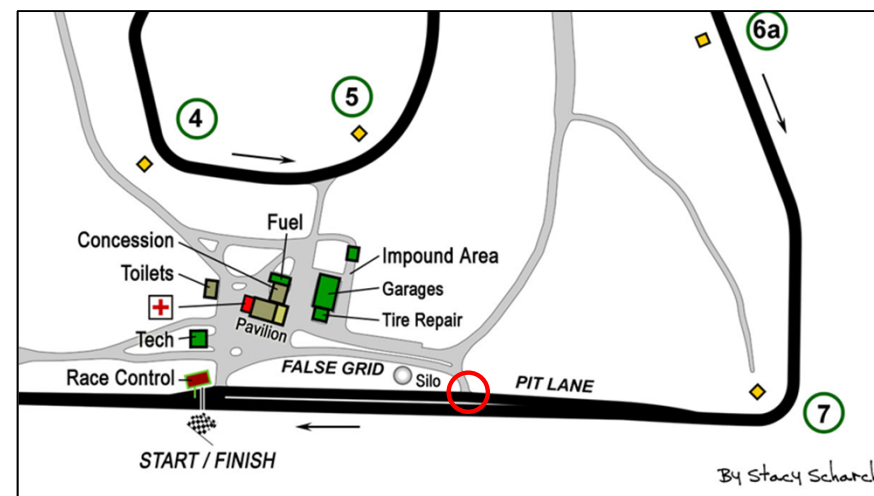
Blackhawk Farms Raceway 1.95-miles



Entering and Exiting the Track



- Entering the False Grid
 - **ENTER** the track next to the silo
 - **STOP** before entering the track surface
 - **BE READY** - Belts, helmet, gloves, already on.
 - **LOOK LEFT**
 - **THEN** proceed onto the hot pit lane
 - Stay on the **LEFT SIDE** against the barrier
 - Cars exiting the track will be passing you **ON YOUR RIGHT**
 - Stop at the starter stand to show your wrist bands
- Entering the Track
 - **DO NOT CROSS THE BLEND LINE!**
 - Stay to the right ALL the way through Turn 1
- Exiting the track
 - Only at the **END** of hot pit lane, on the right side
 - Watch out for cars entering the track



Entering the False Grid



Entering the Track



Exiting the Track












Parking after your session



- Do not use your parking brake
- If driving a manual transmission car:
 - Slowly pull up to your spot in 1st gear
 - Push in the clutch and shut off the engine
 - Coast into your spot, release the clutch to stop and leave the car in gear
 - Stay off the brake as much as possible

Flags give you commands and information



-  **Green:** the track is open
-  **Yellow:** slow down, look, **Do Not Pass**
-  **Waving Yellow:** **Do Not Pass** *AND* the problem is **Right Here!**
-  **Yellow & Orange:** the track surface has changed and may be slippery
-  **Red:** **Stop** on the track at the closest manned corner station & wait for instructions
-  **Black:** **Exit** to the pits; wait for instructions
-  **Meatball:** There is something wrong with your car; **Exit** to the pits
-  **Blue with Yellow Stripe:** check your mirrors; let faster cars pass
-  **Checker:** Session over. Take a cool-down lap and **Exit** the track

Seating Position



- You should be comfortable and within easy reach of main controls (e.g., steering wheel, pedals, shifter)
- Seat and steering wheel adjustment:
 - Seat should be forward enough to fully depress the clutch and other pedals without “locking” the knee
 - Adjust seat height for clearance and forward visibility
 - Adjust steering wheel and seat rake for proper distance between yourself and the steering wheel
 - With shoulders back extend your arms and drape your wrists over the steering wheel at the 12 o’clock position with a slight bend at your elbow
- Relax your grip with your hands at the 9 o’clock and 3 o’clock positions on the steering wheel
- Adjust Mirrors to see the maximum to the side

Driving Basics - Mental



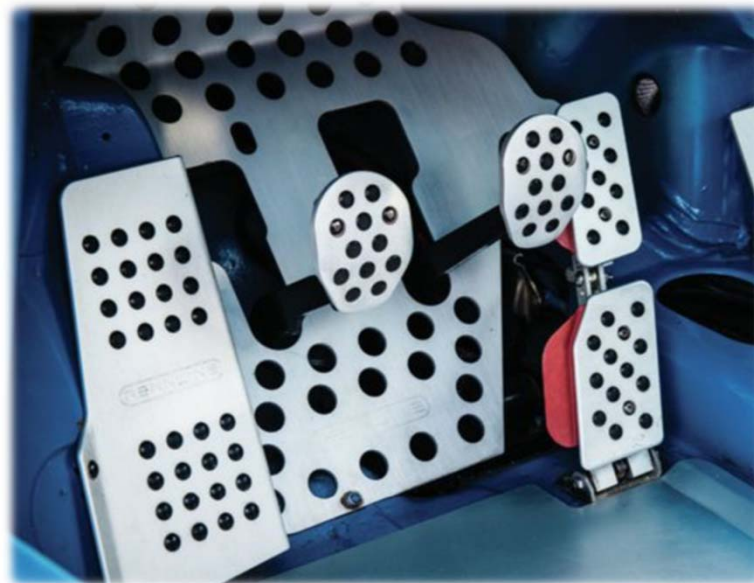
- Relax
 - Keep a LIGHT grip on the wheel – don't have a DEATH GRIP
 - Breathe! Yes, breathe!
- Be smooth
 - Feel like everything is happening too fast? You're doing it wrong.
 - Smooth = Fast
 - No sudden or sharp inputs
- Eyes UP
 - Look FAR ahead, THROUGH turns to the exit
 - Turn your head
 - You will go where you look
- Focus on technique – speed will follow
- Give yourself time to learn
- Drive within your abilities



Driving Basics - Physical



- Automatic Braking MUST be DISABLED if equipped
- Leave all the “Nannies” enabled
- No need for Sport or Sport Plus
- Pedals
 - Smooth and deliberate
 - Firm solid SQUEEZE of the brake pedal
 - ROLL on the throttle
 - No stabbing or jabbing
- Steering wheel
 - TWO hands on the wheel, always
 - Shuffle vs. crossed? Go with what’s comfortable
- Shifting
 - This entire track is 3rd and 4th gear
 - PDK – Let the car do the shifting
- Drive your OWN line
 - DON’T blindly follow the car in front of you



Terminology



- **Brake markers:** count down as you approach the end of a straight, serve as reference points for when to brake
- **Reference point:** a consistent spot on the track that helps you remember where you are (tree, fence post, bump, pavement change)
- **The Line:** the ideal path around the track



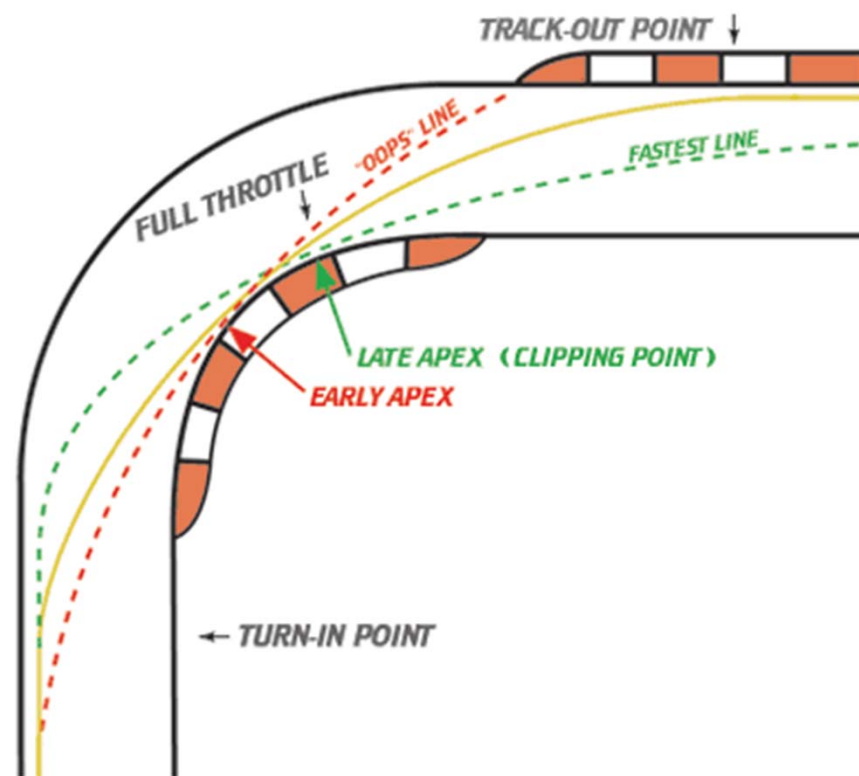
Terminology



- **Turn-in Point:** the point at which you start turning the steering wheel to start your turn
- **Apex:** the point at which you will “touch” the inside of the turn
- **Track-out Point:** the point at which you reach the outside of the track after hitting the apex

For reference points, use:

- curbs (apex, exit)
- brake markers
- marks on/near the track
- pavement patches
- bumps and dips of the track
- objects in the distance



Turn-In



Apex



Track-out

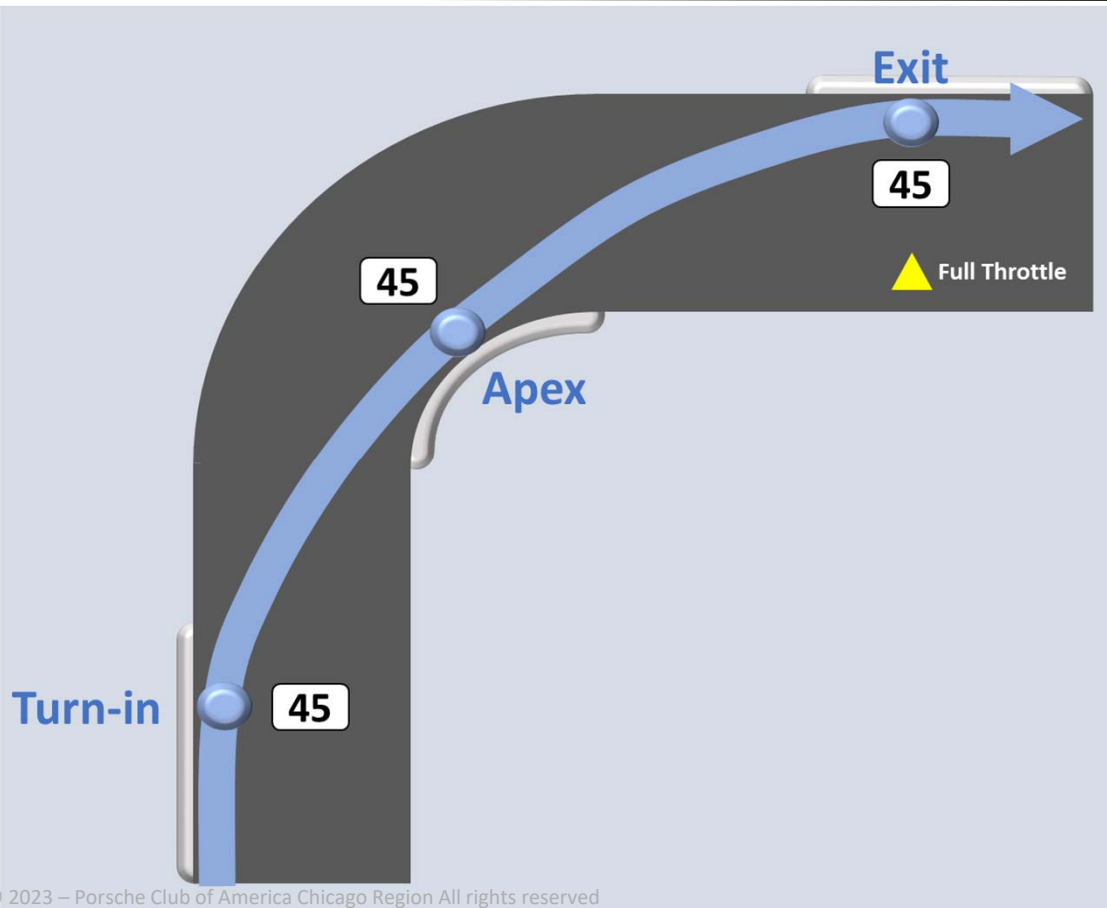


What to do on Each Part of the Track



- Straights
 - Accelerate
 - Pass and be passed
- Brake Zones
 - Brake firmly
 - Keep the car straight
 - Look into the turn
- Turns
 - Turn the wheel smoothly
 - Use the full width of the track at turn-in and track-out
 - Past the apex, unwind the wheel and begin the accelerate

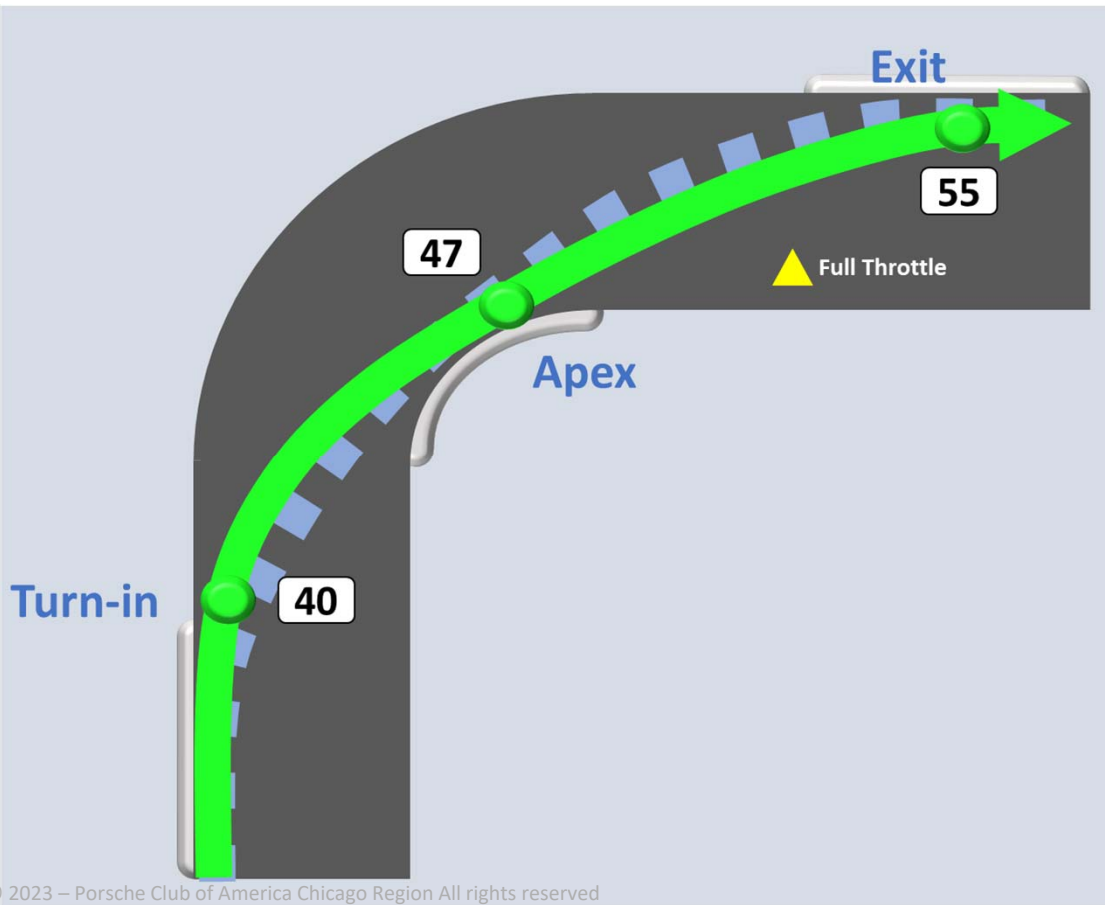
Speed Determines Radius



The largest radius is **NOT** necessarily the best line

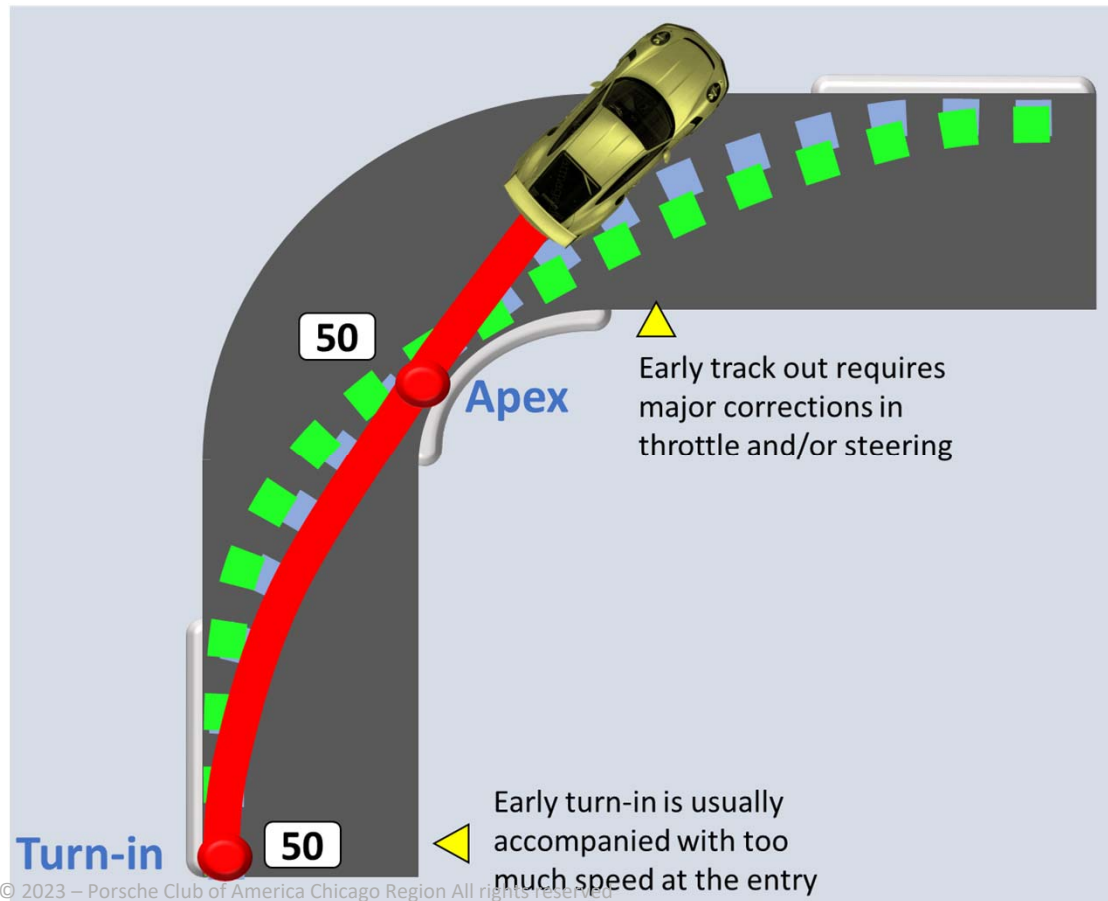
- Largest possible radius = fast through the turn
- But, you **Can't accelerate** until **after** the turn is completed

Late Apex



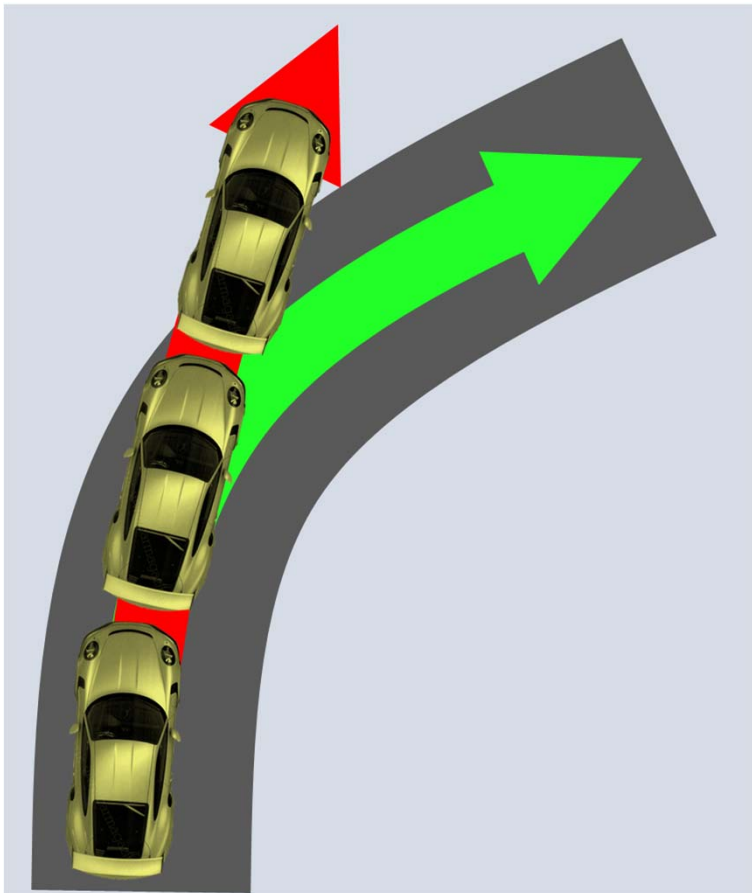
- Late turn-in gives smaller initial radius, later apex
- Increasing radius allows **earlier acceleration**
- **Faster** at the track-out
- **Safer**: if you miss the apex, delay acceleration
- If it is hard to get to the apex or you don't use all the track on exit, you probably turned too late
- Too Late is MUCH better than Too Early!

Early Apex



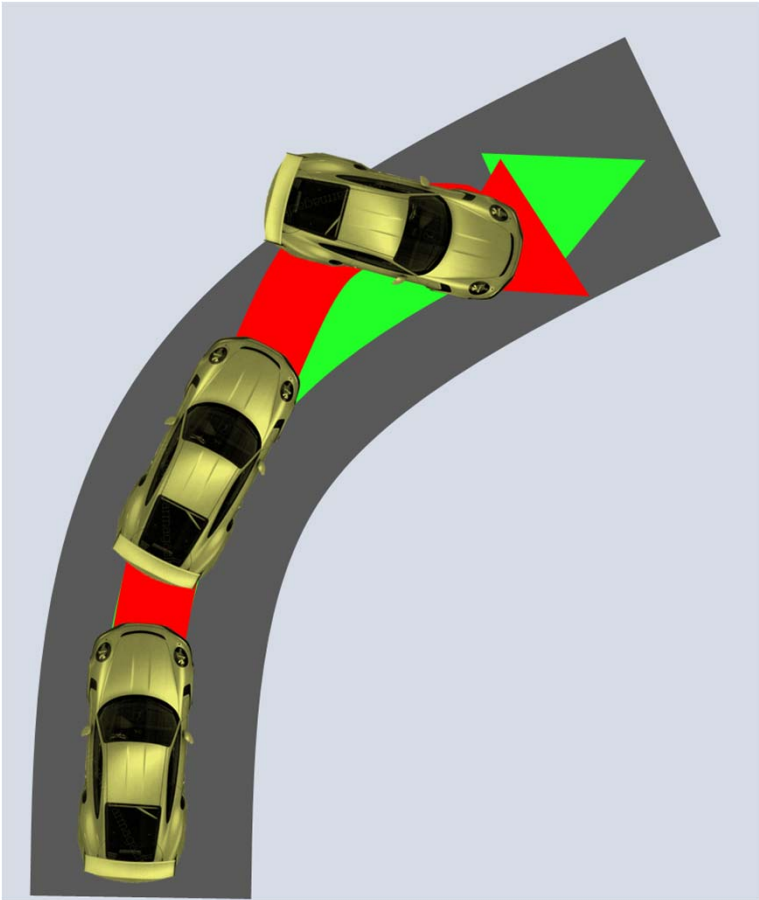
- You have to tighten the wheel to stay on the track
- Reduce speed gradually: “breathe out of the throttle”
- Slower speed permits tighter radius near exit

Understeer



- Causes
 - Improper weight management
 - Too fast corner entry
 - Abrupt or early throttle
 - Too much braking or throttle
- Corrections
 - Slow to proper speed
 - Reduce throttle to transfer weight forward
 - Ease brake pressure to allow more grip for turning

Oversteer



- Causes
 - Excessive throttle
 - Trailing throttle oversteer
 - Improper trail braking
 - Mismatched downshift
- Corrections
 - Smoothly manage throttle
 - Ease brake pressure or gently increase throttle to transfer weight rearward
 - Wait to downshift as late as possible

If you can't recover, brake hard!

String Theory



Think of a string attached from the bottom of the steering wheel to the end of your shoe.

If you are turning, you must lift off of the brake or the throttle.

As you straighten the wheel, you can add back throttle or brake.



Driving Basics - Safety



- **Pay attention to your brakes**
 - Cars with PSM brake without your input
 - Pedal feeling squishy or car not slowing as well? Back it off a little, let them cool
 - **Tell your instructor**
- **Watch your gauges**
 - Water temp, oil pressure, oil temp, oil level
 - Fuel!
 - ~~Speedometer~~
- **Check your mirrors**
- **You**
 - Tired? Come in early.



Speaking of safety...



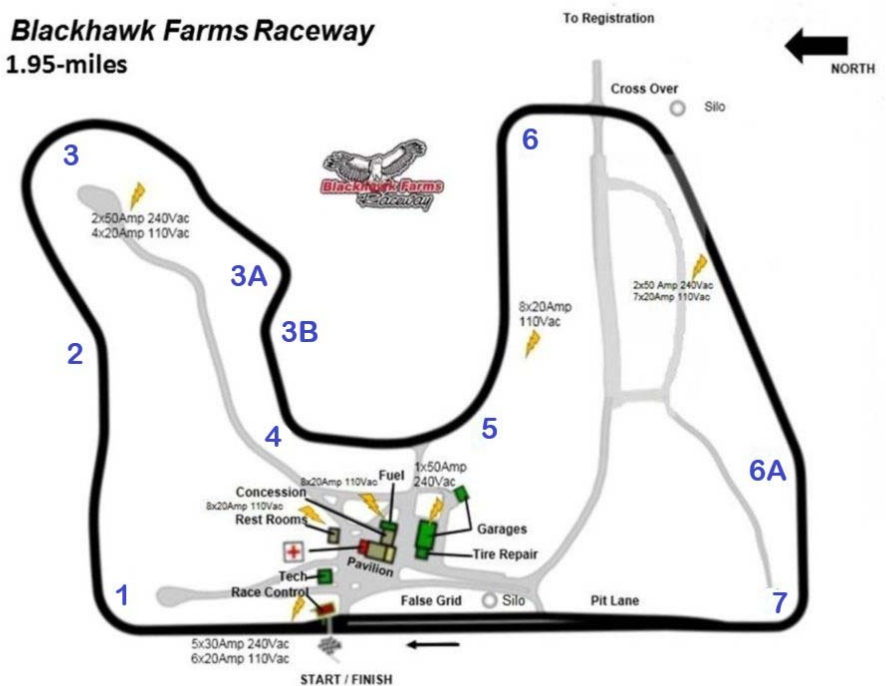
- **No intentional skidding/sliding/drift**
- **DO NOT stop on the track unless you see a red flag**
 - If you see a red flag, proceed SLOWLY along the right edge of the track until you are within eyesight of corner station, then stop – Arm out and UP in a fist
- **Stay aware of your surroundings**
 - Watch for environmental changes (debris, fluids, rain?)
 - Don't crowd slower drivers
 - Be courteous to faster drivers behind you (watch your mirrors!)
- **Keep ALL FOUR TIRES on the paved track at ALL TIMES**
- **NO RACING**
 - Contrary to what you told your friends or co-workers, this is not a race today

Passing - the “Point By”



- **ONLY** on the straights!
 - Between 7-1, 5-6, and 6-7 before the kink (6A)
- **Be predictable!**
- **YOU** stay **ON** line... however...
- ... **point** where **YOU** want **THEM** to go
 - Straight out for left side, up and over the roof for right side
- **COMPLETE** your turn at **FULL** speed, **THEN** let them by
- **Lift GENTLY** – do **NOT** brake but let them by

Blackhawk Farms Raceway
1.95-miles

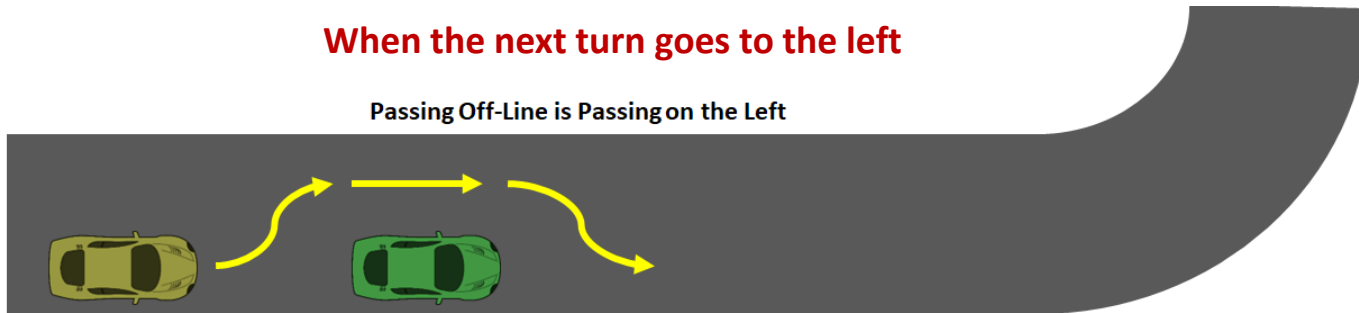


Passing – Definition of Off-Line



When the next turn goes to the left

Passing Off-Line is Passing on the Left



When the next turn goes to the right

Passing Off-Line is Passing on the Right



Passing – The Point-By



Pass Me on the RIGHT



Pass Me on the LEFT



Passing Example



Off Track Excursions



- Be gentle – think “tippy toes”
- Go off STRAIGHT
- Get car stopped, **check your mirrors**
- Assess yourself and your instructor
- **THEN** assess the car (from the driver’s seat)
- If you + instructor + car are OK
 - Wait for corner worker to point you back on track
 - Proceed directly to hot pit lane to talk to race control



Off Track Excursions - IMPACT



- **If you hit something...**
 - *Assess yourself and your instructor*
 - If there are injuries – WAVE ARMS to get corner worker’s attention – the Safety Crew is already on their way
 - Otherwise, give them an “OK”
 - Shut car off if still running
 - **DO NOT get out of the car UNLESS it is ON FIRE**
 - Stay aware of your surroundings – someone might follow you off!
 - **STAY BELTED IN**
 - Wait for safety crew to arrive





More Information on Our Web Site



- Blackhawk Handbook
 - <https://pca-chicago.org/wp-content/uploads/2023/02/2023-Blackhawk-Handbook.pdf>
- A Novice Day at Blackhawk Farms Raceway
 - <https://pca-chicago.org/wp-content/uploads/2023/02/2023-Noviceday-at-Blackhawk.pdf>
- Selecting the Right Safety Equipment
 - <https://pca-chicago.org/how-to-select-the-right-safety-equipment-for-you/>
- Road Course Techniques
 - <https://pca-chicago.org/wp-content/uploads/2022/03/Road-Course-Techniques.pdf>
- A Hot Lap at Blackhawk Farms Raceway
 - <https://pca-chicago.org/a-hot-lap-at-blackhawk-farms/>

Schedule



6:45 to 8:00 for drivers 10:00 for others		Registration at Gate	
7:00 to 8:10 then 8:55 to 10:00		Tech Open	
8:10-8:30		Drivers Meeting - MANDATORY - ALL	
8:30-8:50		Pairing Meeting - Novice/Instructor	
Time	Group	Track Time	Additional Information!
8:55-9:20	All	Novice/Instr Touring	NO Helmets this session ONLY
9:20-9:45	E	Experienced	
9:45-10:05	N 1	Novice 1	
10:05-10:25	N 2	Novice 2	
10:25-10:50	I 1	Instructor 1	10:30-11:30
10:50-11:15	E	Experienced	ALL Novice Classroom
11:15-11:40	I 2	Instructor 2	
11:40-12:05	N 1	Novice 1	11:00-1:00 Lunch
12:05-12:30	N 2	Novice 2	As Group Schedules Permit
12:30-12:55	I 1	Instructor 1	Drivers Lunch Sponsored by
12:55-1:20	E	Experienced	THE EXCHANGE
1:20-1:45	I 2	Instructor 2	
1:45-2:10	N 1	Novice 1	
2:10-2:35	N 2	Novice 2	
2:35-3:00	I 1	Instructor 1	2:40-3:15
3:00-3:25	E	Experienced	ALL Novice Class Follow-up
3:25-3:50	I 2	Instructor 2	
3:50-4:10	N 1	Novice 1	
4:10-4:30	N 2	Novice 2	

Goals for Your First Two Sessions



- Touring Session
 - Learn how to get on and off of the track
 - Learn where the track goes and begin to learn the racing line
 - Identify Corner Worker Stations, curbing, and brake markers
- Session 1
 - Learn how to grid with your helmet and instructor in advance of your session
 - Get used to driving faster on the track
 - Pass someone and let someone pass you
 - Relax your hands and check your gauges on the front straight