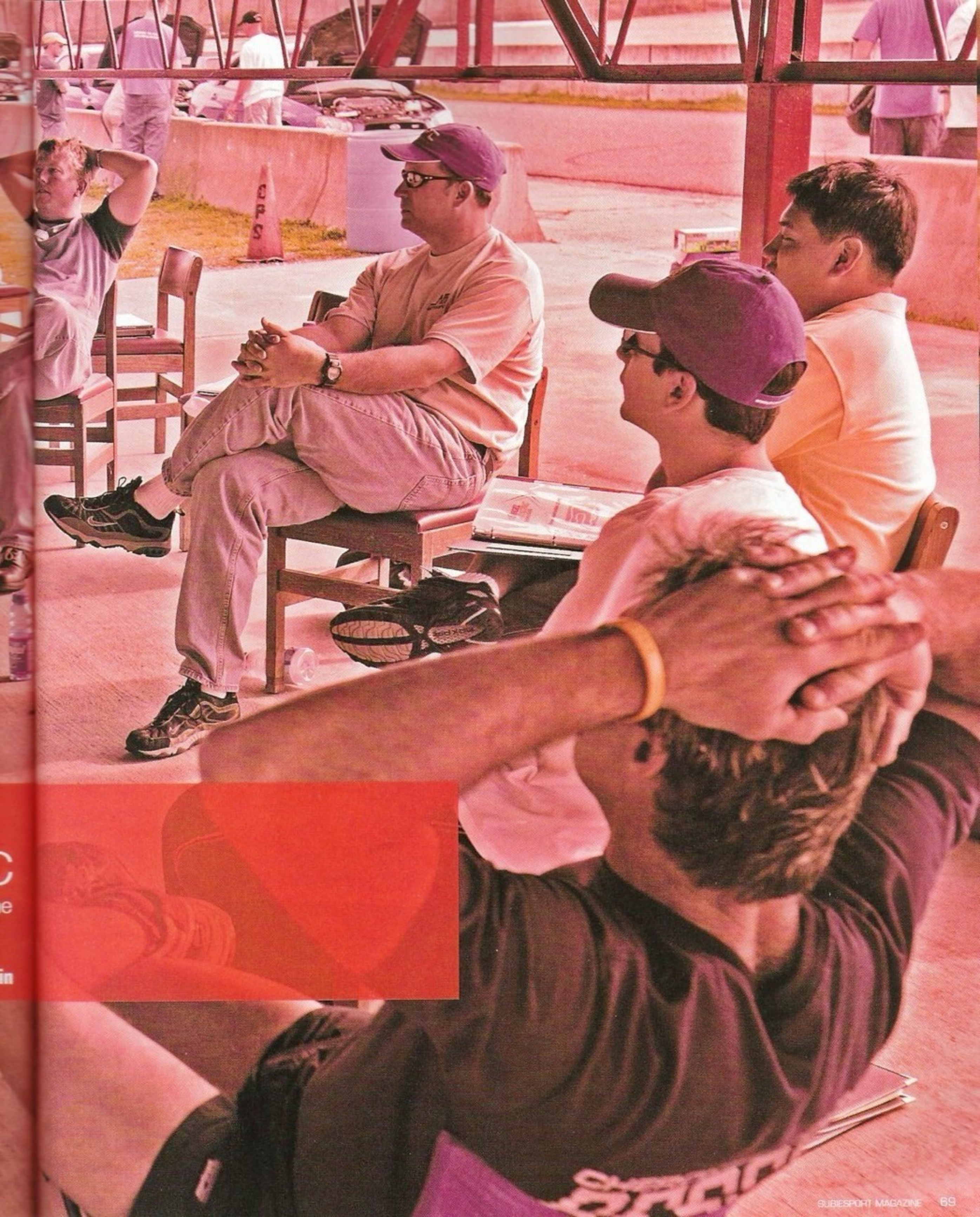


SEIGEL RACING DRIVER EDUCATION CLINIC

if you catch some zzz's in this class, you're reading the wrong magazine

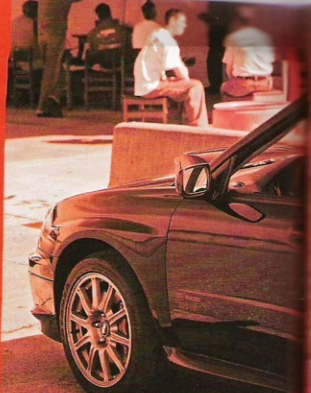
Words: Mark Thompson

Photos: John Sano



Many experienced drivers are known to say; if a racer wants to go faster they need to tune the "nut behind the wheel." Improvements in car setup or increases in horsepower add little or no value unless a driver is capable of driving his car to its full potential. That is where Scott Siegel, owner and lead instructor for Siegel Racing Driver Education Clinic (Siegel Racing DEC), enters the picture.

Scott is not only the tuner guru at Subaru of Gwinnett, just outside of Atlanta, Ga.; he is also an accomplished shifter kart driver and all-around swell guy. Scott started the Siegel Racing DEC several years ago to help budding race car drivers, wannabes and enthusiasts alike learn everything from the basics of car control to advanced techniques that will subtract precious fractions of a second from lap times. He was just the guy I needed to see in order to get faster.



Take it to the next level

I've been an avid autocrosser for a number of years now, earning several trophies and awards for competition. As fun as autocross is, the Siren's song of road racing calls me ever closer with each passing racing season. If I ever wanted to make an investment in a dedicated race car, I'd need Scott's help learning about driving on a road course.

I signed up for the Siegel Racing DEC after hearing good things about it from members of Subaru-specific online communities like www.wxatlanta.com and www.nasioc.com. Our class was held on a beautiful early spring day at the Talladega Grand Prix Raceway in Anniston, Al., better known as "Little Talladega" for its proximity to the Talladega Super Speedway.

Little Talladega is a favorite track for car clubs across the Southeast. It is a relatively small track (1.3 miles) with nicely banked turns, plenty of safe run-off areas and a track surface that resembles your typical paved road. It may not have the best surface for a race track, nor is it kind to tires, but it meets the needs of its main clients: motorcycle racers and tire manufacturers who use it for testing.





Where the rubber meets the road

A large group met that morning to caravan over to the track, just a short drive from metro Atlanta. All of the students drove Subarus, with the exception of one mean Porsche GT2 pushing over 500hp at the rear wheels; this would be the yardstick for us to measure our on-track performance. Passing over the Georgia state line into Alabama, we entered the Central time zone, taking us back in time just enough to get an early start.

Scott's philosophy toward a driving school is different than some of the other commercial driving schools' out there. He takes a focused approach to each student by capping the classes at much smaller sizes. The school maintains a 2:1 ratio, six students and three instructors per school, split into two groups. Scott's goal is to ensure participants get hours of track time and personalized instruction.

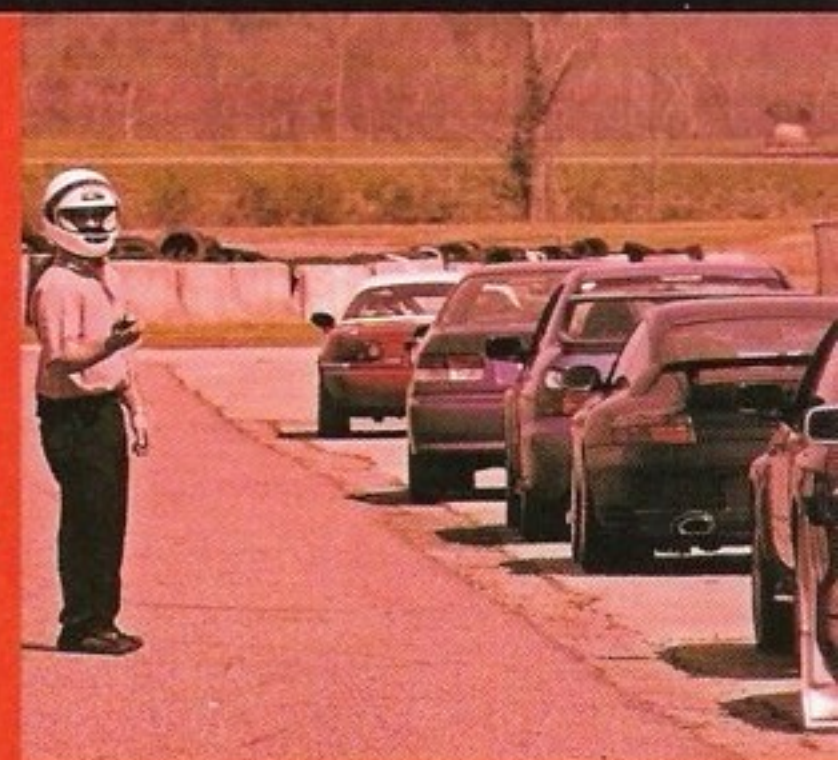
After arriving at the track and unpacking, we wasted no time getting out on the track. Our first experience was driving the course several times following behind one another in a convoy. Each car had a two-way radio, so Scott, driving the lead car, could communicate the basic driving line as we followed behind him. Drivers rotated into the second position behind Scott for a close-up look at the line.

This exercise was followed by the first class session of the day, where the students were introduced to the basic physics of high-speed driving. We learned about critical concepts such as line theory and car control before hitting the track again. This time the instructors drove, demonstrating the lessons taught earlier.

After the ride-along, we had another brief lesson about the paramount topic of "traction circle." This is the theory that a tire's available traction in a direction is proportional to the amount of input via acceleration, turning and braking. To demonstrate this concept, we then drove on a skid pad. The 300-foot skid pad circle incorporated into Little

Talladega's configuration is a great way to experience how a car's grip is affected by inputs from throttle, brakes and steering wheel. I personally had a great time bringing my WRX in and out of a controlled drift; however, after a few loops around the circle, my head felt like it had been on a turbocharged merry-go-round.

While the other students took their turns driving around the skid pad, I switched out my tires and wheels for a more aggressive setup consisting of 17x8 Rota Torques wrapped with 245/40R17 Kumho Ecsta MX's. I had used my stock wheels with 225/50R16 Falken Azenis ST-115's as a warm-up set earlier, but after the morning's exercises, I was ready to get serious about driving fast.



"...my head felt like it had been on a turbocharged merry-go-round."

Technology is one of the most valuable tools a racecar driver has at his disposal. Advances in microprocessors and GPS satellites have created affordable data acquisition systems that professional and amateur race teams can use to record track sessions. Later, a driver can review a multitude of information about his laps and find ways to become faster and more consistent. The folks from Tragmate Systems, makers of such a device, were on hand that day to give the latest version of their product some trial runs. The installation was quick; they hooked up a small box inside my car linked to an antenna and sent me out on track for the first open session of the day.

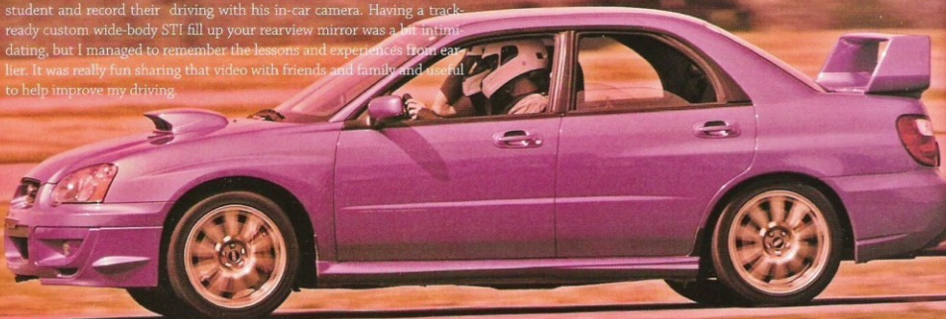
Back on the track, I was lapping Little Talladega at high speed with an instructor by my side and a computer recording my every move. Nervous? I'd be lying if I said I wasn't, but the rush of adrenaline that hit me on the back straight right at about 95 mph erased my anxiousness! That feeling was then quickly replaced by a self-preservation instinct that reminded me to hit the brakes in order to make a quickly approaching left-hand turn. I had to suddenly decelerate to nearly 55 mph in preparation for the turn. After a few laps I soon discovered that hell can quickly build at these extremes and my street/autocross brake pads weren't designed for sustained track duty. I wasn't going to let that minor inconvenience curb my enthusiasm for attacking the track, though.

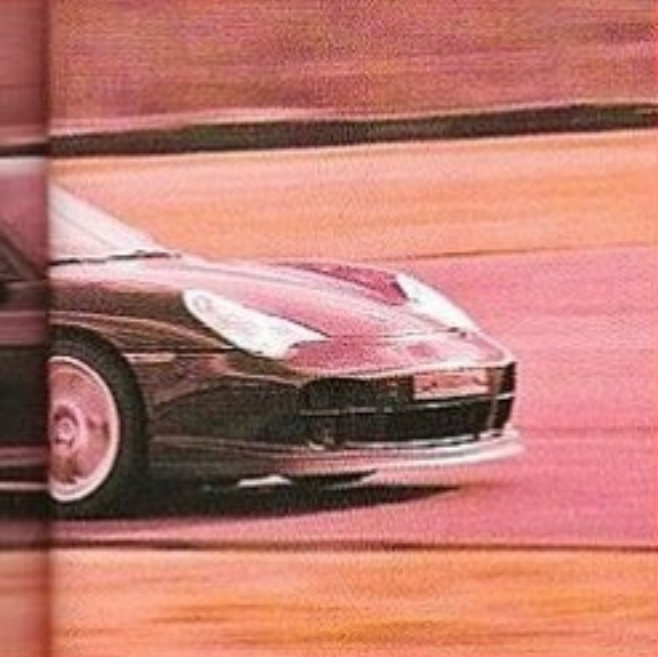


Big brother is watching

The day continued with several more track sessions, followed by further discussion about the intricacies of driving at one's limit. As part of one lesson, we reviewed the data logs recorded by the Tragmate system attached to my car. According to my memory I was hitting every apex perfectly and driving at the absolute limit of my car. The computer told a different story, and you can't argue with cold hard data. The system recorded every second of my time on track. It represented each lap as a detailed map showing my exact line and whether or not I was braking, coasting or accelerating. It even graphed my tire's traction circle! This information was extremely helpful in pointing out areas where I was consistent and where I needed improvement. I would consider a device like this as a must-have for anyone who is serious about improving on-track driving skills.

For even more feedback and a keepsake of the day, Scott had former student Javid Kelley, driver of a highly prepared 04 STI, follow each student and record their driving with his in-car camera. Having a track-ready custom wide-body STI fill up your rearview mirror was a bit intimidating, but I managed to remember the lessons and experiences from earlier. It was really fun sharing that video with friends and family and useful to help improve my driving.





After an all-day driver's education clinic like this, you can be sure of two things; you and your brakes will be very tired after hours of sustained use. At the beginning of the day Scott warned us about the three types of fade that occurs while out on a racetrack: brake pad fade, brake fluid fade, and brain fade. I suffered from all three by the end of the day. In spite of the fading, I still learned an immense amount about the physics involved in racing and the proper way to drive on a racecourse. Thanks to Scott and the rest of his crew of instructors, I am that much closer to starting a career in amateur racing. Look out Schumacher!

The players



Brian Buzek

Home Town: Safety Harbor, FL
Car: 05 Subaru WRX STi, Crystal Grey
Mods: Full Turbo Back exhaust, ECUtek tuned by Scott Siegel (315 whp), Tien Flex Coilovers
Reason For Attending: "I love my car and wanted to experience its full capabilities. I quickly learned the car is more capable than I am at driving it."
Do you Race: "No"
Most Important thing learned today: "I have been awakened to many of the crucial aspects of driving that are necessary to operate a high performance automobile at the limits of the car's potential."



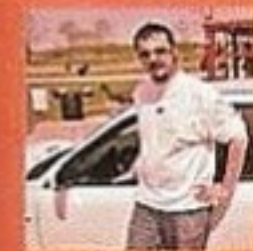
Patrick D'Auria

Home Town: Atlanta, GA
Occupation: Regional Manager/Marketing Manager
Car: 02 Subaru WRX Sedan
Mods: Guttled factory uppipe, Radom Tec downpipe/midpipe with high flow cat, Helix Cat-back, Intake silencer removed, High flow Green filter, and a whole lot of suspension work.
Reason For Attending: "To learn how to drive at the limit of my car's ability and to drive really fast!"
Do you Race: Currently with the SCCA Solo2 in the STX class
Most Important thing learned today: "Brakes are the most important aspect of racing."



Brian Hollis

Home Town: Gainesville, GA
Occupation: Self Employed
Car: 05 Subaru WRX STi, Black
Mods: Injen CAI, stainless steel brake lines
Reason For Attending: "To experience advance driving with my STi."
Do you Race: "Offshore Powerboat racing, 1999 rookie of the year and National and World champion"
Most Important thing learned today: "You need Patience and someone will always be faster than you."



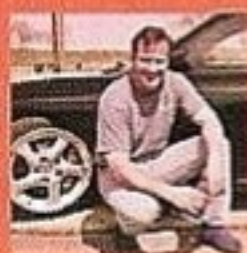
Javid Kelley

Home Town: Atlanta, GA
Occupation: Radiological Engineer
Car: 04 Subaru WRX STi, White
Mods: Random Tec Down-pipe, Magna flow cat-back, ECUtek tuned by Scott Siegel, Whiteline bars and bushings, JIC Coilovers, Chargespeed v2 bumper and fenders (widebody), Rear quarter panels stretched and rolled by Gwinnett Collision
Reason For Attending: "To shoot chase footage of the students."
Do you Race: "Autocross noob and trackday junkie"
Most Important thing learned today: "Rotors must be turned after pad transfer or else it will happen again after a few laps."



Michael Manning, MD

Home Town: Murphy, N.C.
Occupation: ER Physician
Car: 04 Subaru WRX STi, Blue
Mods: Full Exhaust, Upgraded Turbo, ECUtek Flash
Reason For Attending: "Already attended two other schools, I can't wait to get back on track"
Do you Race: "No"
Most Important thing learned today: "No matter how ready you think you are, you aren't, really."



Cleve Meredith

Home Town: Atlanta, GA
Occupation: Business Owner (carwash)
Car: 2002 Porsche 911 GT2, black
Mods: Evolution Motorsports Stage IV 502rwhp 503rwtq
Reason For Attending: "To learn from Scott and to have fun."
Do you Race: "Former SCCA National License Holder"
Most Important thing learned today: "Michelin Pilot Sport Cups are not as sticky as Pirelli Corsas."



Richard Ransburgh

Home Town: Flowery Branch, GA
Occupation: Truck Driver
Car: 04 Subaru WRX STi, WRB Blue
Mods: ECUtek Reflash, Turbo back exhaust
Reason For Attending: "To learn to drive faster."
Do you Race: "No"
Most Important thing learned today: "Turning in for a late apex gets you better exit speed."



Chang Sok

Home Town: Atlanta, GA
Occupation: Georgia Tech Student
Car: 04 Subaru WRX, Silver
Mods: Crucial Racing up-pipe/down-pipe, Stromung 3" Cat-back with dual tip muffler, Samco Inter-cooler hoses
Dynoed at 223 whp / 227 wtq
Reason For Attending: "To learn and experience the limits of my car."
Do you Race: "No"
Most Important thing learned today: "Be smooth and look ahead."

SOURCES

Siegel Racing Driver Education Clinic
www.siegelracing.com

Talladega Grand Prix Raceway
www.tgprace.com

Tragmate Systems
www.tragmate.com