

he California Superbike School is stuff of legend. It supposedly takes absolutely mediocre riders, and gives them ungodly bike control over the course of a single weekend. It takes advanced riders and allows them to find seconds where they thought none existed. It doesn't hurt that they've trained at least 65 world and national champions since their inception in 1976.

You see, CSS manages to bring out the best in every student for one simple reason. They break down motorcycling to

the absolute basics: analysing the physics of your motorcycle and of your actions, to explaining how your bike would react in any situation. Keith Code, the founder of CSS, has designed a course that allows you to unlearn all the mistakes picked up from years of riding motorcycles untrained, and makes you re-learn everything the right way.

CSS has been coming to India for seven years, and takes place at the MMRT in Chennai. The three-day school takes you through the first three levels of their syllabus. Sadly, slots are limited and it is rather expensive (worth every last rupee though) and not everyone gets to attend it. Yours truly was lucky enough to find himself among the few on the roster this year, and has every intention of sharing what he learned in school with you.

Let us take it from the top.

### The Basics

"Smoothly, evenly, and constantly". That's what you'll be constantly reciting inside your head on your first session on track:

the coach's instructions on how to get back on the throttle once you've got the bike tipped over in a corner. As you open the throttle, the bike starts to accelerate and weight shifts to the rear. This is crucial to maintain grip through the corner, as your rear tyre is wider than the front, and consequently has more grip. Whack it open too quickly and best case scenario is you'll run wide, worst case scenario is the rear wheel will slide and the bike will spit you off. Don't ease on to the throttle and you risk losing the front.

The key is to roll the throttle smoothly, keep the suspension balanced and keep your tyres in contact with the road.

But even before you can start rolling on the throttle, you've got to steer the bike into the turn. A commonly made mistake is to steer (actually countersteer) while the throttle is still open. The correct sequence of events is roll-off, brake, steer and roll back on — with none of these steps overlapping. The physics behind this is childishly simple.

As long as the throttle is open and the

bike is accelerating, the weight stays on the rear wheel. When you roll off, the bike slows down allowing you to get to the correct speed for turning and along with it the weight transfers to the front, which means the wheel that is going to do the turning now has grip. The braking slows the bike further down while the input on the handlebar actually turns the bike. Once the turn is over you roll the throttle back on to get the weight transferred to the back again as you accelerate out of the turn. The other

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# Classroom sessions teach you the physics behind riding bikes

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to look beyond the danger, to make you a safer, faster rider.

The trick here is to allow your brain to receive information smoothly. If you feed it choppy information, your inputs on the bike are going to be choppy and that is never a good thing. To this end, you've got to create reference points on the track to keep you informed of where you are and where you need to go. Allow your sight to flow from one entry point marker, apex marker and exit marker to the next, and you will find yourself smoother around the track. Stop fixating on riders ahead of you, hazards on the road, or anything else that you don't want to hit. Like they say, look where you want to go.

In addition to this, you've got to keep your sense of speed low. If you aren't looking far ahead, you will feel like you are going much faster than you actually are. Keep looking ahead — at the apex even before you enter the turn, at the exit even before you hit the apex (while keeping your entry and apex in your



critical thing to remember is that there should only be one steering input per turn. Once you've steered the bike into the turn there should be no further steering inputs. Also, the correct method to steer is to push the handle bar on the side you want to go. To steer left, push on the left bar; to steer right, push on the right bar. It may not make sense in your head but go try it out, and you'll be surprised.

Then there's the matter of turning in quickly. The idea behind the quick turn is to allow you to go deeper into the corner before you actually turn. What this allows the rider to do is have better vision through the turn. It also means that the bike is leaned over for the shortest period of time, making it faster through the same corner than a rider who turns in lazily. You've got to give the bars a firm push — it is pretty terrifying, but the coaches are constantly reminding you that there have been no reported crashes from steering too hard.

Riding 101 is gripping the knees with the tank and not the bars. If you're holding on to the bars too tight, should the bike get imbalanced, you will be fighting the bike's natural tendency to straighten itself out. And the bike will spit you out, no questions asked. Gripping the tank with your knees leaves the bar free to shimmy around if the bike is unstable and stabilise itself. You've got to keep weight off the bar in a turn as well — once you're done steering, your arms should be completely slack, and should you encounter an unfriendly bump mid-corner, the bike will keep things under control provided you let it.

### Look where you want to go

Once you've got your basics in order, the next thing you learn is what to do with your eyes. Our eyes are designed to function perfectly at walking pace. But speed things up and they start malfunctioning. You see, biologically, our eyes have been made to look for food, a mate and danger. At a 100kmph on a motorcycle, all they can see is danger. You fixate on targets and your sense of speed increases. So you've got to train your eyes





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peripheral vision) and your brain will conclude you aren't going too fast, and will allow you to push the bike more.

Developing this peripheral vision also requires practice. We Indians are particularly adept at it though, our traffic conditions are terrible and we're constantly paying attention to our peripheral vision to avoid idiots on our streets. While looking far ahead creates space in front of you, peripheral vision allows you to create space to your sides and is crucial in fighting tunnel vision.

# Get your lean on

Once you've got your essential controls in order, the California Superbike School sets about getting your body position right. Hanging off your motorcycle like Rossi may look insanely cool in photographs, but it serves a very real purpose. Firstly, hanging off a motorcycle reduces its centre of gravity and consequently keeps it more stable around the turn. Secondly, it allows you to reduce how much the







motorcycle has to lean, and the more upright it is, the faster you can put the power down at the exit of a turn. So how do you get it right?

First, flick your arse out slightly (ideally one cheek off the seat) and do so well before the turn, when you are still on the gas — the bike is more stable when you're on the gas and moving on the bike will not destabilise it. Grip the tank with your outside knee and steer in to the turn, looking as far ahead as you can — that should sort out most of your upper body. Now your next plan of action depends on what lies ahead: it could either be a straight or another turn. If it is a straight, as you see the exit, slide back on to the bike while keeping your upper body leaned forward. This will allow you to get better drive out of corners, and will reduce the chances of sliding. If you've got a corner in the opposite direction, slide over to the other side while keeping one knee in contact with the tank at all times. Your knee gives you a good grip, and will allow you to shift from one side to the other without putting pressure on the handlebars and destabilising the bike.

This is an abridged compilation of what you learn in three days at CSS. However, this is just the theory. A lot of learning happens on track, when you spend time exploring every aspect of what they're teaching you individually, slowly pushing the limits of you and your motorcycle further. Crucial to implementing the drills correctly is the fleet of coaches shadowing you on track. They observe what you're doing, point out corrections and insist on improvement the next time you head out.

The best part about the school, undoubtedly, is the fact that they aren't a racing school. They are very clear about the fact that what you learn in the school is applicable on the road with a few minor adjustments (like accounting for oncoming traffic) and will make you a safer, quicker rider on the road.

Try applying the different techniques mentioned above, one by one the next time you go out riding. Doing so all at one go will just leave you confused and flustered. And if you want to learn more, stay tuned to our monthly Masterclass section where CSS coaches routinely spell out different aspects of riding correctly.