The need to make the most of study time is something that we all can relate. Chances are even those students who seem to be studying night and day and acing every test still crave those insider study tips for how to “study smart, not hard.” Wherever we study, in whatever subjects, and for all types of programs — don’t we all want to be doing it right and seeing real results? Luckily, scientists and researchers have uncovered the finer points in the art of studying effectively.

From studying-while-sleepy to ditching the iPad in favor of the trusty old printed word, using these 17 scientifically proven study tips can help you crack the code in how to study in college the smart way and score higher than ever before!
1. Thwart the “curve of forgetting”

Scientists started exploring this unique psychological phenomenon in 1885 though it remains an important factor to consider when studying even today. Essentially, the story goes that the first time you hear a lecture or study something new, you have the best chance of retaining up to 80% of what you have just learned if you review the material again within 24 hours. And — bonus — this has a cumulative effect, so after a week, you’ll have the ability to retain 100% of the same information after only five minutes of review. Generally, psychologists agree that this type of interval studying — and not cramming — is best. Experts advise students to optimize study time by placing it closer to the day you learned the material than to the day of the test. This means if you learn something on Monday and the quiz is the following Monday, you should begin studying no later than Wednesday.
2. **Study when you’re tired, and get some rest!**

While this might sound counterintuitive at first, there is some science to this madness: studying when you are most tired immediately before bed can actually help your brain to retain higher concentrations of new skills, such as speaking a foreign language or playing an instrument. There is even a term for it: *sleep-learning*. As the memory-consolidation process does its best work during slow-wave sleep, your brain could be getting both the restoration and reactivation it needs during its time of rest at night. All of this means that reviewing study materials before bed can actually help your brain learn, even in your sleep.
This controversial method of studying smart was a hot topic in 2009 when a psych professor at Washington University in St. Louis published an article in *Psychological Science* advising students against previously held good study habits of reading and rereading textbooks. He argued that could lead people to think they know material better than they do because everything is right in front of them (and does not require memorization). He suggested instead that students use active recall: closing the book and reciting everything they can remember up to that point to practice long-term memorization.
4. **Stick to print**

Tablets and other mediums of eLearning are great for convenience and portability, but research proves that when it comes to how to study in college, traditional print materials still have the upper hand. While some researchers argue that adopting new habits like scrolling, clicking, and pointing when using an interactive digital interface enhances the academic experience, more than 90% of students polled said they prefer a hard copy or print over a digital device when it comes to studying and school work. Furthermore, a psychology lecturer at the University of Leicester in England found that students required more repetition to learn new material if they were reading on a computer screen versus reading printed material.
5. Use the Leitner System

If flashcards are the most universally known example of the active recall method, the Leitner System is the Cadillac of flashcards when it comes to study tips. Named for its originator, German scientist Sebastian Leitner, the system serves to ultimately force students to learn the material they know least well through repetition. The system involves moving the cards with correctly answered questions further down a line of boxes and moving incorrectly answered cards back to the first box. Thus, the cards in the first box are studied most frequently and the interval becomes greater as you proceed down the line, forcing you to review the information you do not know over and over until you learn it.
6. Don’t overlearn

Once you have been able to cycle through all your flashcards without making a single mistake, you may feel a sense of satisfaction and call it a day. Or, you may feel a charge of adrenaline and be tempted to keep pushing the boundaries of all that your mighty brain can accomplish in one sitting. But when you come to such a fork in the road, continuing to study is known as “overlearning.” Traditional thinking held that if *a little* studying is good, *a lot* of studying must be even better, which does not seem altogether wrong at first glance, but researchers from the University of South Florida and UC San Diego found that a sharp onset of diminishing returns quickly sets in during overlearning. With a limited amount of time to study each topic you are better served moving on to something else.
7. Listen to music

No, we do not mean Kanye, but classical just might do the trick according to researchers at Stanford’s School of Medicine. While some experts argue that the ability to concentrate during silence or listening to music while studying is left up to personal preference, many agree that playing certain types of music, such as “obscure 18th century composers,” for example, can help students engage the parts of their brain that help them pay attention and make predictions. Not to mention, listening to music can improve your mood and change your whole outlook about studying in general.
8. **Stop multitasking**

You may think you are killing two birds with one stone by texting or instant messaging while studying, but really you are just letting those distractions get the best of you with those poor study habits. A University of Connecticut study in 2015 called a spade a spade, and showed multitasking for what it really is: an extender of your study time and detrimental to your grades. Similar studies by comparable colleges and universities confirm that succumbing to multitasking while studying is merely a waste of time.
9. **Relax**

As if you needed another reason not to wait until the last minute to study, research has found that stress actually hinders learning. UC Irvine researchers found that even stress lasting as briefly as a couple of hours can engage corticotropin-releasing hormones that disrupt the process of creating and storing memories. Taking study breaks to exercise or drawing a few deep breaths will help your studying if they lower your stress level.
Many students are familiar with “the” practice tests to beat all practice tests, for events like the SAT or GMAT exams, for which practice testing is recommended as study tips. For other tests such as midterms and final examinations, some college professors and high school teachers will make old exams available as practice tests, allowing students to get a sense of the instructor’s testing style and become familiar with how the information might be presented on the real test day. A study in *Science* magazine showed students who tested themselves with a practice test after learning the material retained 50% more of the information a week later than their peers who did not take a practice test. It can’t hurt to add a little practice testing to your study routine.
11. Make connections

Ever wondered what the real secret is behind those students who barely studied in college, but still made the grade? Perhaps they knew about the importance of making connections in learning. Many experts argue that the difference between slow learners and quick studiers is the way they study: instead of memorizing, quick learners make connections between ideas. Known as contextual learning, the process is a crucial one that requires each student to customize their own methods of learning, thus making connections that inspire all of the information to start falling into place and making sense for the individual. Some students find that recording all information visually in one place (such as on a sheet of paper or chalkboard) can help to paint a full picture and aid the making of connections within the learning process.
12. Think about your thinking

This is the point on our list at which we ask you to get a little abstract with us for study tips: exploring a tried and true method of learning called metacognition, or thinking about thinking. It may take a little explaining to understand, but numerous studies have shown its effectiveness. One could imagine this as a version of self-awareness for the academic set. Students need to be able to constantly assess their level of skill and where they are in their studies as well as carefully monitor their emotional well-being around potentially stressful studying activities.
While this may be a no-brainer for some students, others may forget some good study habits such as that an update as simple as a change of scenery can have a big impact on learning and concentration abilities. UCLA psychologist Robert Bjork once lamented that there are a number of well-known and scientifically proven study techniques in existence that are often simply ignored, such as the effectiveness of just changing where you study. Simply moving to a different room to study (or going a step further and learning amongst the great outdoors) could increase your concentration and retention levels.
14. **Forget about “learning styles”**

Not only is the idea of being loyal to one “learning style” limiting your own expectations for learning, it’s also a hotly contested point of discussion among academic researchers and learning experts, many of whom are not sure that learning styles even exist. Our conclusion is this: despite the “enormous” amount of work on the subject, scientists have found “virtually no evidence” to support the concept of learning styles, though they left the possibility open to further investigation in years to come. We recommend you don’t go out of your way to try to make your material fit a specific style because it’s not worth the time or effort.
The benefits of exercise on the brain are many and well documented among varied sources spanning health, fitness, science and psychology. Studies show our brainpower gets a boost immediately following even a short workout, pumping oxygen and nutrients to our brain for optimum studying abilities. According to Dr. Douglas B. McKeag of the Indiana University Medical Center, breaking a sweat shortly before cracking the books can make you more alert and more open and able to learn new information during your post-workout study session.
If you’ve never been prone to “burnout” from Chem101 flashcards or felt in danger of having trig functions seared onto your brain from too much concentrated studying, consider yourself lucky. But know that the threat is real. Scientists have proven another one of these study tips in that it’s better to vary the material when studying, rather than zeroing in on just one area, though it’s acceptable and even preferable to join related or similar subject areas together. For example, instead of only memorizing vocabulary, mix in reading as well. If doing math, tackle several concepts together instead of just one.
17. Try the Fenyman Notebook Method

A 1993 biography written by James Gleick of renowned physicist Robert Fenyman describes the fateful way in which Fenyman created this organization-based learning method: he wrote, on the title page of a fresh notebook, “notebook of things I don’t know about.” From there, he developed a technique of deconstruction and reconstruction of ideas, in an effort to truly understand even the most complicated of concepts. Experts suggest that by simplifying a concept through analyzing its basic properties, we can better understand it. To use this method and learn how to study effectively in college, first identify what it is that you want to learn, then try explaining it as you would to a five-year-old (hint: you may need to do more research if this is not possible yet). The Fenyman method is ideal for using analogies to further illustrate your concept, i.e. how a bonsai tree is just like a big tree, but smaller.
18. **Bonus Tip: Take on the role of ‘teacher’**

This is your bonus of study tips. Research shows that students had better memory and recall abilities when they learn new information with the expectation of having to teach it to someone else. This makes sense when you think about it: teachers are charged with not only learning information for themselves, but also with organizing and prioritizing key elements of said information to clearly explain it to others who may have no prior knowledge of that subject. Studies also suggest that students are more engaged and will instinctively seek out methods of recall and organization when expected to take on a “teacher” role. Experiment with trying to teach information you’ve just learned to an imaginary classroom during a study session. This can be especially effective with subjects like reading comprehension and science, though part of the magic involves working out how you’d “teach” each subject on a case-by-case basis.