

## **\*Study Tips**

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### **I. Review Your Study Behaviors and Habits**

Have you ever taken an exam, felt like you knew the material, and then been surprised by a low grade? Many students have had that experience, and it is often not a result of lack of ability or effort, but rather of poor study strategies. The ideas below may help you study more effectively, but none are “magic”, and certain to yield success. Studying takes time and effort, and using more effective study strategies should be helpful.

#### **How Do You Study?**

Be honest with yourself about the amount of effort you put into studying.

Do you read assigned textbook chapters or other material carefully, more than once?

Do you read this material before you come to class, after, or just before the exam?

Do you use a tutor or study with other students?

How much time do you devote to studying for a test?

Do you put off pleasurable activities until your work is completed?

#### **Class Attendance and Note Taking**

Do you attend class regularly?

Where do you sit in the classroom?

Do you take good notes?

Do you review your notes after class to correct obvious errors?

Do you compare your notes with those of other students to catch errors or omissions?

#### **Staying Healthy**

How much sleep do you get, and how much the night before an exam?

Do you get enough exercise and eat properly?

### **II. Suggestions on How to Study**

College is different from high school. Some students who did well in high school may be surprised that the study strategies that worked well in high school do not work as well in college.

#### **The ‘Curse of Knowledge’**

Students often think they know the material if it is right there in front of them. They go over it enough so that when they review it they “recognize” it as familiar and prematurely conclude that they know and understand it, when they really do not.

#### **Studying More Does Not Always Help**

Students may try to improve exam grades by studying more, but still use the unsuccessful study techniques they have been using, rather than trying other techniques.

## **Study For The Type of Test You Are Taking**

Students may study hard and know the material, but if their study technique does not match the type of test they will take they may not do well. For example, learning definitions of key terms may not be enough to pass a multiple-choice exam that applies those terms to real life examples.

## **Use Tried and True Learning Principles**

### ***Aristotle's Law of Frequency***

The more often things are experienced together, the stronger the association between them becomes. Repetition is essential for learning and remembering. Read the book and other materials more than once, go over your notes frequently, and study with the book, your notes, and other study materials together several times prior to an exam to help connect what you learn in class to the book and other materials.

### ***The Spacing (Distributed Study) Effect***

When study sessions are spaced far apart (distributed practice), performance is superior to performance when sessions are close together (massed practice). Study and review regularly throughout the semester, don't just cram the night before the exam.

### ***Ebbinghaus' Overlearning***

Learning or continuing to practice beyond subject mastery (overlearning) greatly reduces the rate of forgetting. Students often go over material until they "recognize" it upon review, but don't really "know" it. Continue to study beyond this point, ask yourself questions about it, apply it to your life, etc., until you really have it mastered. Memorize important material through repetition when necessary, and once you feel you have it mastered, study it a little more to help improve mastery and retention.

### ***Reminiscence***

You perform a task better when tested some time after it has been learned as compared to immediately after learning it. This suggests you might try to finish studying a few hours prior to an exam rather than studying the same amount of time right before the test.

### ***Deep Information Processing***

Deep processing of information occurs when you focus on meaning, relate new knowledge to existing knowledge, and otherwise manipulate what you are learning (apply, evaluate, synthesize). In contrast, a surface approach (shallow processing) primarily uses rote memorization, or mindless reading and rereading. Deep processing facilitates learning and remembering, shallow processing can actually lead to less remembering than just reading with no intention of learning or remembering.

### ***Avoid Multitasking***

Research consistently shows that learning and memory suffer when you study while

doing other things. Turn off the radio, TV, music, cell phone, Facebook, etc. and focus on studying. Use earplugs if necessary. You will get done faster and remember better.

## **Use Winning Study Strategies**

### ***Before You Study***

- Read the class syllabus carefully to find out what the professor wants you to focus on and how he/she plans to test you on the material.
- Schedule daily studying and homework time, and make this time “media free” (turn off your cell phone, TV, music, Facebook, etc.).
- Make lists of things to accomplish during studying.
- Think over and write out the steps needed to complete a given task.
- Write down information relating to study tasks and assignments (keep a study log and a “to do” list).

### ***Reading The Textbook***

- Look over material prior to reading it, and write out a general outline of the major headings and subheadings that organize the chapter (usually readily apparent in bold or colored print). This helps create a memory structure to organize the new material you will learn. The more you already know about something, the easier it is to learn more.
- Read the textbook and any other difficult material until you really understand it. Don’t just read, think about what you are reading. Ask yourself how the material relates to other things you know or have learned in class. Rereading the book is not useful unless you do more than skim the material. Try doing your hi-lighting of important points during the second reading, not the first, and again ask yourself questions about the material as you reread.
- Use deep processing as you read. Generate real-life examples to apply the material. Evaluate what you are reading, what is this section of the text trying to teach you? Consider how the material is similar or different from what you already know.
- After you read a section of your book or notes, close them and try to remember what you have read. Then check to see what you forgot and review it again.
- Use chapter review questions to self-test, don’t just read over them. The process of repeatedly recalling material makes it more available in memory, so test yourself as often as you can.

### ***When You Study***

- Study at a “desirable level of difficulty”. Desirable difficulties are conditions that require effort, create difficulty, and lead to more durable and flexible learning. For example, vary your study conditions (e.g., study in different rooms), space study sessions, and generate examples, questions, and answers as you study.
- Generate examples to apply the material. Deep information processing occurs when you relate new knowledge to existing knowledge and otherwise manipulate what you are learning.
- Memorize appropriate material through repetition.

- Answer all questions in the study guide, and so repeatedly.
- Use practice exams to quiz yourself, not as something more to study. Put away your book and notes, answer the questions, then go back and see what you need to study more.
- Use a study partner (ideally someone doing at least as well as you in the class), try to explain the material to each other, and quiz each other as you study.
- Make good note cards. A good card might read “Provide an example of \_\_\_\_.” Try to create a new example each time you go through the cards, relate the example to your own life, and try to explain to yourself why this idea exists or works.
- Study for the type of test. If you need to know definitions, make flash cards. For multiple choice tests, try to find multiple choice practice exams in the online supplements to your textbook. For short answer or essay questions, practice writing what you know.
- After taking an exam review the items you missed, including items you guessed at and got right.

### ***In Class***

- Review the textbook, the previous day’s notes, and other assignments before class.
- Attend class and sit toward the front of the room.
- Don’t sit next to someone who distracts you.
- If you don't understand something, ask a professor about it during or after class or during their office hours.
- Take good notes and then review, organize, and clarify them. Comparing them with other student's notes may reveal errors or omissions.
- After class, take a few minutes to think about the lecture. What were the important points, and how do they relate to previous lectures and what you already know? Do this as soon as possible, even as you walk back from class.

### ***Other Assignments***

- Make an outline before writing a paper.
- After writing a paper, wait a day or two, read over it, and correct and revise as needed.
- Have someone else read the paper and tell you what is unclear, poorly organized, etc.
- Check your work before handing in an assignment, and make sure you followed the directions and answered every part of the questions.

### **Behaviors To Avoid**

- Listening to music, watching television, text-messaging, or surfing the internet while studying. The research is clear on this, you learn less when your attention is divided.
- Spending too much time on key terms or summaries and paying less attention to other study aids (e.g., review questions).
- Highlighting too much text (not knowing what the important information really is).
- Using chapter review questions (and answers) as more content to study versus using them to test your knowledge.
- Studying with a friend that does not involve testing each other, answering review questions, quizzing each other, creating examples, or reviewing notes.
- Staying up all night studying before the exam. Research shows you don’t learn much

when exhausted and do better on tests when you feel well. Memories are stabilized and organized as you sleep, so study prior to the night before the exam and get your sleep.

\* Much of the information above was derived from the following sources:

Gurung, R. A. R. & McCann, L. I. (2012). How should students study? In B. M. Schwartz & R. A. R. Gurung (Eds). *Evidence-based teaching for higher education*. (pp. 99-116). Washington, DC: American Psychological Association.

Gurung, R. A. R. & McCann, L. I. (2011). How should students study? Tips, advice, pitfalls. *Association for Psychological Science Observer*. 24(4), 33-35.

### III. How to Study Videos

Dr. Stephen Chew at Samford University in Alabama created five videos on how to study effectively in college to share with anyone who is interested. Each video is 5-7 minutes long. The overall theme is that if students use ineffective or inefficient ways of studying they can study long and hard and still fail but, if using effective strategies, they are more likely to succeed.

**Video 1: Beliefs That Make You Fail...Or Succeed.** This video examines mistaken beliefs students often possess that undermine their learning and tries to correct them with accurate beliefs about learning. Video 1: <http://www.youtube.com/watch?v=RH95h36NChI>

**Video 2: What Students Should Understand About How People Learn.** This video introduces a simple but powerful theory of memory, Levels of Processing, that can help students improve their study. Video 2: <http://www.youtube.com/watch?v=9O7y7XEC66M>

**Video 3: Cognitive Principles for Optimizing Learning.** This video operationalizes the concept of level of processing into four principles that students can use to develop effective study strategies. Video 3: <http://www.youtube.com/watch?v=1xeHh5DnCIw>

**Video 4: Putting the Principles for Optimizing Learning into Practice.** This video applies deep processing principles to common study situations, including note taking and highlighting while reading. Video 4: <http://www.youtube.com/watch?v=E9GrOxhYZdQ>

**Video 5: I Blew the Exam, Now What?** This video covers what students should do and not do if they earn a bad exam grade. Video 5: <http://www.youtube.com/watch?v=-QVRiMkdRsU>

A description of a presentation to freshmen that videos 1-4 is based upon can be found here: <http://www.psychologicalscience.org/index.php/publications/observer/2010/april-10/improving-classroom-performance-by-challenging-student-misconceptions-about-learning.html>

See also: <http://www.drkit.org/students> Videos include How to Study Effectively, and Finding the Motivation to Study.