

How to Study for Tests and Exams

The Study Cycle

Preview	Look at lecture topic, read before class
Attend Class	Be attentive and engaged; take notes by hand
Review	Soon after class, briefly review your notes, fill in gaps, summarize key points, and think about the big picture
Study	Schedule several focused study sessions throughout the week for however long you can stay focused (20-30 min); set specific and realistic goals; reward yourself
Check Understanding	Is what you are doing working? Change techniques if not.

Less Effective Study Strategies

- Listening to lectures
- Memorizing isolated facts
- Reviewing notes over and over
- Cramming at the last minute
- Rereading texts and highlighting information

While these strategies may result in a decent grade, they only lead to short term memorizing rather than long term understanding.

Effective Study Strategies

Practice Retrieval

- Getting information out, rather than in
- Recreating something you've learned in the past from your memory and thinking about it right now

Practice Retrieval Strategies:

- Space out practice: practice after some time, not immediately; take breaks that you give you time to forget a little and then self-test

-Mix up Practice. Use different strategies:

•Generate Questions

- Read a chapter or review notes and generate meaningful questions that help you compare and contrast, analyze, and think about implications of concepts
- Fact questions okay if required to learn those facts
- If using a textbook, check the back of the chapters or book for questions or use online companion websites for practice tests

•Paper and Pen: Grab a sheet of paper and write down (or draw) everything you know about a topic

•Become a teacher: Say aloud the information or try to teach it to someone else

•Flashcards

- Quiz yourself but even if you don't know an answer, pause and generate one, then flip it over
- Or, lay them all out topic side up, then write down everything you know about a topic and how it relates to other topics before checking the answer

Interleave: Alternate between two topics so you continually refresh your mind on each topic.

Create a Concept Map: Could be a diagram of nodes and links (nodes are concepts and links are arrows showing how these concepts connect and flow; phrases on arrows can show how concepts relate), a Venn diagram, a timeline, a chart, or a graph (then you can practice retrieving your visual aid from memory)

Principles for Achieving Deep Processing

Elaboration: How does this concept relate to other concepts? How can I relate this concept to my personal experience?

Distinctiveness: How is this concept different from other concepts?

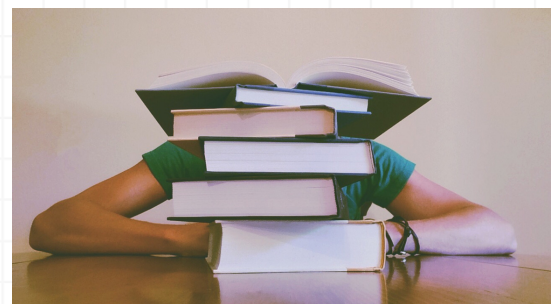
Appropriate Retrieval and Application: How am I expected to use or apply this concept? (ex. What is the test format, do you need to apply concepts to a sermon or real-life situation?)

Productive Study Groups

Set a specific goal and agenda (ex. Review chapter 3), set criteria for participation (ex. everyone has read the chapter and prepared 3 questions), keep ultimate goal of learning in mind, everyone can ask and answer questions, result: any member can express the understanding of the whole group

If you did poorly on an exam

- Examine how you prepared
- Ask yourself, "Were mistakes spread out or focused on one topic?"
- Ask yourself, "Did I follow instructions or misinterpret questions?"
- Compare errors with your notes
- Then, talk to your professor



Don't be the student who

- Keeps studying the same way hoping to improve
- Waits until the end of the semester to ask for help
- Skips class to focus on other classes
- Falls further behind waiting to find time to catch up
- Crams at the last minute
- Doesn't do assignments because they are small or late
- Panics and gives up

Test Anxiety

Signs in your head: Depression, low self-esteem, anger, feeling of hopelessness, negative self-talk, blanking out, racing thoughts, trouble concentrating on the test

Signs in your body: Sweating, shaking, fainting, nausea, rapid heartbeat, dry mouth, "butterflies," fidgeting

What you can do:

- Learn about the test format, be ready to counter negative thoughts (either/or thinking, extremes, etc.), try to be a realist rather than a perfectionist or naysayer
- As you are taking the test: practice tension-release exercises (such as deep breathing), look over the entire test then get started, if you go blank remember that action fights anxiety.

Other Key Points

- Learning is slow.
- Finish reading/researching well in advance of a test so you have time to review materials.
- Multitasking is ineffective—eliminate distractions
- Know where and when you study best; do you need silence or background "buzz"?
- Reward your studying with a timed break.
- Being "bad" at a subject or type of assignment means nothing—time and hard work with effective study strategies will pay off.

Sources and Useful Resources

Brown, Peter C., Roediger III, Henry L., and McDaniel, Mark A. Make it stick: The Science of Successful Learning. Cambridge, MA: The Belknap Press of Harvard University Press, 2014.

"How to Get the Most of Learning" video series by Stephen Chew, Professor of Psychology at Samford University

"How to use Retrieval Practice to Improve Learning" retrievalpractice.org

<http://www.learningscientists.org/blog/2016/6/23-1>

<https://learningcenter.unc.edu/tips-and-tools/using-concept-maps/>

<https://learningcenter.unc.edu/tips-and-tools/study-partners/>

<https://learningcenter.unc.edu/tips-and-tools/studying-101-study-smarter-not-harder/>