HOW TO STUDY IN (ALMOST) EVERY SITUATION

A College Student’s Guide to Effective and Efficient Studying

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How Not to Study

Lots of students study using one of these strategies:

- By reviewing their notes
- By rereading their notes
- By looking over their notes

While slightly better than nothing, these strategies are PASSIVE and horribly ineffective. To study effectively and make good use of your study hours, you have to DO SOMETHING ACTIVE!!

How to Study

The pages that follow describe many strategies for effective studying. Great students will use many strategies in their college careers, varying the ones they use based on each specific discipline, course, and professor. Approach each class and exam independently, identifying what strategy makes sense in this situation. Don’t just rely on one or two strategies…there is no one-size-fits-all when it comes to studying!

Reading
Strategy #22

Take Separate Notes

Read with a pencil and notebook or a computer at your side. AFTER you read each paragraph or section, write the main idea(s) in your notebook and add any details or examples under these main idea headings. Do this frequently and consistently.

EVEN BETTER: Enhance your notes by adding color, symbols, drawings, or graphics to allow you to better understand the material. This can be especially helpful if you feel lost in too much text.

In what situations do you do this?

- When the reading is especially dense or challenging, and you need great focus to pull main ideas out of each paragraph or page
- When the organization of the text is confusing to you…organize your notes so you can understand the material
- When a deep understanding of the reading is critical for exams or discussions
- If you do not have the luxury of writing in your book
Reading
Strategy #21

Take Notes in the Margins

Read with pencil in hand. AFTER you read each paragraph or section, write a few words in the margin to summarize the main point(s) in that section. Then, at the end of each larger section, perhaps a page, write a slightly longer summary of that page’s content.

In what situations do you do this?

♦ When the reading is especially dense or challenging, and you need great focus to pull main ideas out of each paragraph or page
♦ If you have the luxury of writing in your book
♦ When you try highlighting like a surgeon and you find yourself still spacing off or getting to the bottom of a page with no idea what you just read

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BIG FOUR

Study Strategies

These four strategies can be used in virtually every class to study lecture and text material. They are best used on an ONGOING BASIS to keep up with a class so exam studying is easier! (But you can use them just for exam study too.)

#1—Rewrite or Retype Your Notes

#2—Orally Read Your Notes

#3—Predict Test Questions

#4—Create Study Guides or Summary Sheets

Reading
Strategy #20

Underline or Highlight Like a Surgeon

Read with pencil or highlighter in hand (or cursor ready). After you read a paragraph or section, go back and highlight the one or two most important sentences or phrases in that paragraph or section.

Just as you don’t want a surgeon to cut more than absolutely needed, you don’t want to highlight more than a tiny fraction of the reading material. Don’t highlight while reading! Stop at intervals, think about the main idea presented, separate out the details, and ONLY highlight those precious few key points.

In what situations do you do this?

♦ When you are having trouble focusing or paying attention, but the material makes sense with a little extra effort
♦ If you have the luxury of writing in your book
♦ When reading electronic documents if you can save your highlights
Reading

Study Strategies

Do you get to the end of a page and wonder what you just read? Do you doze off or space out? Do you put the time into reading but fail to comprehend the main points? Do you waste time reading the same stuff over and over again? Try these ACTIVE reading strategies!

#20—Underline or highlight like a surgeon

#21—Take notes in the margin

#22—Take separate notes

BIG FOUR

Strategy #1

Rewrite or Retype Your Notes

After class (ideally later the same day), recopy or retype notes from your class. You can recopy them nearly “as is,” or you can reorganize them in a way that makes more sense to you.

EVEN BETTER: Add color, symbols, arrows, etc. to enhance the connections between content and create visual cues.

In what situations do you do this?

✦ ANY CLASS where you want to review after each lecture
✦ Classes where the professor jumps around and your notes are messy or unorganized
✦ Classes where the lecture was disorganized or organized in a way that was confusing to you
✦ If your original handwriting or notes are messy
BIG FOUR
Strategy #2

Orally Read Your Notes

Read your lecture notes or text notes aloud a few hours or days after taking them. As you read, consider the content and note areas of confusion or connections you see.

EVEN BETTER: With a partner or small group, take turns reading the notes aloud. As one person reads, the others add, comment, remind each other, or question the contents of the notes.

In what situations do you do this?
- ANY CLASS where you want to review after each lecture or reading assignment
- Classes where the content is challenging
- Classes in which the lecture is provided in narrative form
- Classes in which you have others with whom you want to study

THINGS YOU CAN’T JUST MEMORIZE
Strategy #19

Identifying Examples

Think of or find examples that illustrate a theory, concept, or idea from class. Or find counterexamples that go against the theory (just don’t get them confused with accurate examples!).

EXAMPLE: If you are studying different theories of aging, identify people you know or have heard of who fit each theory. Think about your grandparents, celebrities, professors, anyone...as long as they can illustrate a theory (or be a counter example to it).

In what situations do you do this?
- When you have to know a theory and how it applies to real world cases, situations, or patients
- When you will be tested on the application of theories or ideas, not just asked to repeat the definition
- When working with complex ideas, concepts, principles, or theories
- Can be a great strategy for Psychology, Sociology, Education, or other courses
THINGS YOU CAN’T JUST MEMORIZE
Strategy #18

Use Metaphors

Think of or find a metaphor that illustrates a theory, concept, or idea from class. Consider ways this metaphor fits with the theory or things that are inconsistent with it.

EXAMPLE: To better understand and remember how messages are sent through the nervous system, you can create a metaphor comparing this process to how a computer works. Fill in the details and make comparisons about the different steps in each process.

In what situations do you do this?
- When you will be tested on the complexities of a theory or idea, not just asked to repeat the definition
- When working with complex ideas, concepts, principles, or theories
- When you have to understand the functioning and purpose of processes
- Can be a great strategy for Psychology, Sociology, Sciences, Political Science, or other courses

BIG FOUR
Strategy #3

Predict Test Questions

Review lecture notes, readings, or assignments and use them to predict test questions. Think about each major idea, example, concept, or problem and consider how you might be asked about it in the future. Don’t be simplistic! Your professor will probably ask complex questions that require understanding.

EVEN BETTER: Write down the test questions you predict after each class. Write multiple questions about the same content to practice thinking about it from multiple perspectives. Use these sample questions later when you study for the exam.

In what situations do you do this?
- ANY CLASS where you want to review after each lecture or reading assignment
- Classes where the exams include short answer or essay questions
- Math, accounting, economics, and other classes where you can predict the types of problems on an exam (even when you don’t know the exact numbers that will be in the problems)
BIG FOUR
Strategy #4

Create Study Guides or Summary Sheets

Create a concise (1/2 to 1 page) study guide based on the major ideas from each lecture or text reading. Do this by picking out the key concepts, choosing the best examples, and focusing your attention on the most important material covered. Use visual cues such as symbols, color, arrows, etc. to help connect and remember information.

EVEN BETTER: Use these study guides to review at the end of each week and again before the exam. You can always go back to the original notes if you think some important details were missed.

In what situations do you do this?
- ANY CLASS where you want to review after each lecture or reading assignment
- Classes where there is a lot of content covered and many pages of notes
- Classes where there will be a comprehensive final exam
- Classes in which it is challenging to separate the major ideas from the details—better to think about that while studying than during the exam!

THINGS YOU CAN’T JUST MEMORIZE
Strategy #17

Create Scenarios or Case Studies

Think of or find scenarios or case studies that illustrate a theory, concept, or idea from class. Consider ways this scenario fits with the theory or things that are inconsistent with it.

EVEN BETTER: Compile multiple case studies that both fit and don’t fit the theory you are studying.

In what situations do you do this?
- When you have to know a theory and how it applies to real world cases, situations, or patients
- When you will be tested on the application of theories or ideas, not just asked to repeat the definition
- When working with complex ideas, concepts, principles, or theories
- Can be a great strategy for Psychology, Sociology, Nursing, or other courses
“Things You Can’t Just Memorize”

Study Strategies

While some classes require a lot of memorization, many classes will test you based on your application of information you learn. In these cases, memorization is not enough. Put your notecards away! You need to study as you will be tested: by using, applying, and working with the information.

#17—Create Scenarios or Case Studies

#18—Use Metaphors

#19—Identify Examples

Visual Study Strategies

Reorganizing information into a visual format can be a great way to study for many students. It allows you to think actively about the information, utilize different parts of your brain, understand connections more clearly, and create new visual memory cues.

#5—Create a Chart

#6—Create a Concept Map

#7—Create a Timeline
VISUAL

Strategy #5

Create a Chart

<table>
<thead>
<tr>
<th>Buddhism</th>
<th>Hinduism</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create a visual that places corresponding elements side by side. If you are comparing two concepts, this might look like a T. If comparing many concepts, the chart will include more columns or rows. Note similarities and differences between the concepts on the chart.

EVEN BETTER: After creating a chart, recite it aloud (or silently) to memorize it. Then recreate the chart later without your notes, relying only on your memory.

In what situations do you do this?
- When you compare two or more concepts, ideologies, people, historical periods, systems, etc.
- When you are studying something new and want to compare it to something you already know in order to understand and remember it better
- To compare content presented in lecture and in the text

PROBLEMS AND PROCESSES

Strategy #16

Recite Steps

When you are learning how to do a certain type of problem or use a formula, recite the steps to solving the problem aloud BEFORE beginning. By doing this, you focus on the process of solving the problem, not on the specific problem you are working on. Then do each step in turn, saying the step aloud, until you arrive at the end product.

EXAMPLE: A simple algebra problem is $3x - 9y = 12$, and you are asked to put it in slope-intercept form. Begin by saying “Slope-intercept form is $y = something$. I solve for $y$. First I subtract the $3x$ from both sides. Then I will divide both sides by the coefficient in front of the $y$.” Once you have worked through the steps, go ahead and do them.

In what situations do you do this?
- When you have to solve real world, scenario, or word problems
- When you are solving problems that are confusing or require multiple complex steps to solve
PROBLEMS AND PROCESSES

Strategy #15

Identify the End Product

When determining how to solve a problem, begin by determining what the end product will look like before beginning. Use this information to keep yourself on track as you work the problem to reach that goal.

EXAMPLE: If the solution to the problem should be \( x = \text{some number} \), keep reminding yourself along the way that you are solving for \( x \). Or if the solution should be the number of widgets a company must produce, keep reminding yourself along the way. Doing this can help keep you on track and help avoid getting distracted by other numbers or data in the problem.

In what situations do you do this?

- When you have to solve real world, scenario, or word problems
- When you are solving problems that are confusing or require multiple complex steps to solve

VISUAL

Strategy #6

Create a Concept Map

Create a visual that shows the connections between, among, and within concepts using arrows, symbols, and words. Draw out connections that are hierarchical, cause and effect, related to, or otherwise connected. Use words such as “could, avoid, causes, leads to, similar to, sometimes, but, reminds me of, never, etc.” to show many types of relationships.

EVEN BETTER: After creating a chart, recite it aloud (or silently) to memorize it. Then recreate the chart later without your notes, relying only on your memory.

In what situations do you do this?

- To understand (and memorize) systems and processes
- To understand (and memorize) connections between ideas, concepts, facts, dates, people, etc.
- To break down challenging concepts or theories into its parts for easier comprehension and retention
VISUAL

Strategy #7

Create a Timeline

Rearrange information from lecture or text into a chronological format. Create a timeline (vertical or horizontal) and add the information to it.

EVEN BETTER: Use color, graphics, symbols, etc. to increase your understanding and retention of the information.

In what situations do you do this?

♦ When content is chronological in nature (it doesn’t have to be linked to dates...just what happened first, second, etc.)
♦ When a lecture jumps around a lot in time and space and it would help you to understand the information chronologically
♦ Timelines are not just for History class!

PROBLEMS AND PROCESSES

Strategy #14

Create Your Own Problems

Look at the types of problems you are asked to do as homework. Determine what the problems are asking you to do and create similar problems with different numbers or data.

EVEN BETTER: Start by taking an existing problem or example and changing a few numbers. Then as you understand the problem and its intricacies better, create similar problems for scratch. Work through the problems. If you have a study partner, check each other’s work to be sure you are on the right track!

In what situations do you do this?

♦ When a course involves problems that analyze data (use the same problem format but add in new data)
♦ In most math classes
♦ In science, economics, or other classes where you use formulas to solve problems
Strategy #13

Use 3D Models

Create 3-dimensional models of concepts, processes, or systems. Use these models by identifying (and memorizing) the parts, adding or removing parts to walk through a process, or determine what will happen if part of the model changes.

EXAMPLES: Use any materials you can find: macaroni noodles, colored scraps of paper, Styrofoam balls, paperclips, marshmallows, whatever!

In what situations do you do this?

♦ When you must understand how something is constructed and/or its constituent parts
♦ When you have to know the component parts of a process or system in order to analyze, synthesize, or apply them in different situations
♦ Can be a great strategy in science classes such as Biology, Anatomy and Physiology, Physics, and Chemistry

Vocabulary Study Strategies

Understanding and feeling comfortable with new vocabulary can be challenging. Here are some great strategies for tackling vocabulary. They all have this in common: expose yourself to the words OVER and OVER and OVER!

#8—Create a Vocabulary Grid

#9—Visualize Roots

#10—Talk and Write with Vocabulary

#11—Use Flashcards
Create a Vocabulary Grid

Create a grid separate from your regular notes. Identify headings that apply to this course’s vocabulary, such as: definition, example, pronunciation. As you encounter terms in lecture or the text, put the word in your vocabulary grid and fill in the grid.

EVEN BETTER: When studying for a quiz or exam, cover the grid and quiz yourself on the terms. Then cover the terms and quiz yourself on the definitions or examples.

In what situations do you do this?
- When you have a lot of new terms in a class that you need to memorize
- When the course includes technical or unfamiliar vocabulary that makes it hard to understand the concepts of the class
- When you are studying a discipline with which you are unfamiliar with the jargon

Use Diagrams or Flow Charts

Create or copy a diagram or flow chart that indicates steps in the process or problem. Use arrows or other symbols to indicate progression, alternatives, and outcomes.

EVEN BETTER: After creating or copying this diagram, study it by redrawing it but leaving the information off. Use this skeleton to study by filling in the blanks and quizzing yourself. Then study by starting with a blank page and drawing the diagram itself completely from memory.

In what situations do you do this?
- When you have to memorize steps in a process
- When you have to know the component parts of a process or system in order to analyze, synthesize, or apply them in different situations
- Can be a great strategy in science and math classes
Many courses, especially in fields such as science and math, require you to memorize and understand processes and to solve problems. These require much different study strategies than other types of courses.

#12—Use Diagrams or Flow Charts

#13—Use 3D Models

#14—Create Your Own Problems

#15—Identify the End Product

#16—Recite Steps

**VOCABULARY**

**Strategy #9**

**Visualize Roots**

Look at an unfamiliar word and its definition. Think of something that sounds similar, reminds you of the word, or sounds like a root or part of the word. Visualize something outrageous that will connect that root with the actual meaning of the word.

EXAMPLE: To remember the meaning of the term *sanskrit*, think of how its sounds like “sand” and “script.” Visualize a little Indian boy writing (script) in the sand with a stick. *Sanskrit* is an ancient Indian language.

EVEN BETTER: Make your visualizations crazy and goofy, which can make them more memorable. They only have to make sense to you.

In what situations do you do this?

- When you need to learn new or foreign words
- When you have no background knowledge or other frame of reference for a new term
Talk and Write with Vocabulary

Use new terminology in writing and/or speaking. Do this by engaging in a conversation with a classmate about the topic, using the jargon of the course. Tell your mom or friend all about the content, even if they don’t care. Talk to yourself on your drive home. Or do the same with writing… write stories, journal entries, or dialogues using the course terminology.

EVEN BETTER: Talk or write about this course, using the appropriate terminology, over and over. The more you use it, the better you know (and understand) it.

In what situations do you do this?

- When understanding the ideas and concepts of a course takes more than simple memorization of terms
- When studying a new discipline where there are a lot of unfamiliar terms that it is assumed you are comfortable with (make yourself comfortable with them!)
- If you enjoy social studying or creative writing

Use Flashcards

Write a term on one side of a flashcard and the definition or example on the other side. Quiz yourself, ask someone else to quiz you, rearrange the cards, and practice often.

EVEN BETTER: Keep your notecards simple and avoid putting too much information on them. If you tend to include too many details, cut notecards in half so there is only room for the most important information about term. Color code or use graphics and symbols to categorize similar or related terms.

In what situations do you do this?

- When you have a lot of terms to memorize
- When the terms to memorize are relatively simplistic… complex ideas don’t make for good notecard study (use another method!)