

BECOMING A SUCCESSFUL STUDENT AND LEARNER

Your main job as a student is to learn and master the material in your classes. To do this you need to be a strategic and effective learner. Many things can impact your learning including your mindset, your thinking, how you learn, and when you learn. This handout includes evidence from cognitive science about how to approach your classes and learn effectively.

Your Mindset

Before you even start learning, you need to be motivated to learn. Part of that motivation is having the right attitude, or mindset, about learning. Students who are successful have a **Growth Mindset**. Those with a growth mindset understand that intelligence is developed with deliberate practice and by learning from mistakes. The first step to building a growth mindset is to recognize that learning requires dedication and effort. Learning is not a passive act that simply happens to you, it is something you need to actively engage in. To be a successful learner you need to practice, ask questions, and change strategies when needed.

Learning can often be challenging. Students with a growth mindset accept that the process may be difficult and they may face challenges. By accepting this, you can remove the need to be perfect and focus on making progress. One way to develop this is to use the word **Yet**. If you say you don't know something or can't do something yet, then you can focus on how you learn it and become more confident. Practice using the word yet when talking about your classes. I haven't learned this...**yet**. I don't understand this...**yet**.

Your Thinking: Metacognition

How you think about your own thinking, or **Metacognition**, also impacts your learning. The ability to self-reflect on your own learning can help you recognize when you have learned something and when you haven't. You can incorporate metacognition into your learning by creating a metacognitive journal. This is a daily reflection on your planning, monitoring, and evaluating throughout your learning.

Planning involves thinking about the learning you will be doing. Before you start your assignments, figure out how long each will take and set goals for your study sessions. Your goal may be to read Chapter 1 and get all of the main ideas down. Then while you are studying, monitor your learning. Monitoring involves in the moment reflection of how you are doing. Ask yourself, is there anything you are confused on? Do you need to take advantage of other supports like office hours or supplemental instruction? Finally, evaluate how your learning went. Did you meet your goal? What worked well? What did not work well? And now metacognitive evaluating can loop back into planning. If you did not understand something, you need to plan to go to office hours or use a different strategy.

Memory & How You Learn

When you study material for your classes, you are trying to create strong memories that you can use at a later point. You want to have long-lasting memories that you can retrieve when you are answering a multiple-choice question or when you need to write an essay. The strategies you use when you learn can help you understand the material better

and create stronger memories. Two of the most effective ways to learn are to test yourself on the material and to explain the material in your own words.

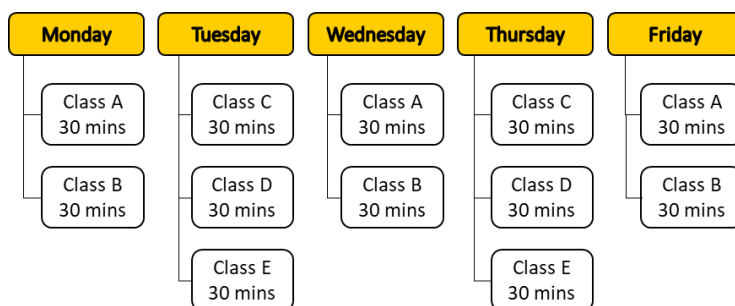
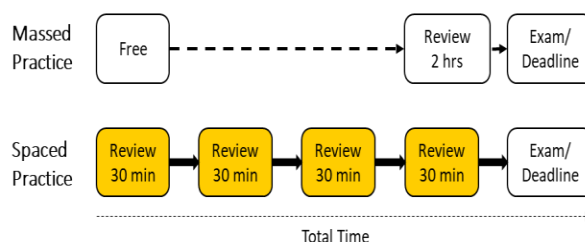
Testing yourself on the material improves your memory. By trying to remember the information you actually strengthen those memories and are less likely to forget. Flashcards, Quizlet, and practice tests are all great ways to test yourself. Creating your own flashcards, Quizlet, or review questions is even better. You want to actively recall the information instead of simply becoming familiar with it. Wait to flip that flashcard over and force yourself to remember the material. Cover your notes and try to recall everything on the page. Take a practice test or answer chapter review questions before looking up the answers. This may be more difficult but it strengthens your memory and you'll have a better recollection of it when it comes time to take an exam.

Explaining the material in your own words helps you understand the information at a deeper level. It also allows you to apply the information in different ways, which is exactly what you are doing when taking an exam or completing an assignment. Summarize your notes in your own words. Describe and teach the information to a friend, classmate, or even your cat! As long as you are explaining the material (out loud or in your head) without looking at your notes, you will learn the information at a deeper level and be better able to remember it.

Memory & When You Learn

Not only is the way you study important, it is also important to think about when you are studying. The best way to learn is by using spaced practice. **Spaced practice** is where you focus on learning a little bit of material at a time. It is more effective to space out your learning over time instead of cramming it all in right before a test. This type of learning is called massed practice, where you do all your learning in one long study session. Massed practice is not only very stressful, but it also doesn't give your memory the chance to work effectively. It leads to shallow memories, memories that are easily lost or forgotten. You may remember the information in the short term, but you are much more likely to forget that information later on.

Spaced practice is effective because memories fade quickly after learning. Re-learning material that has faded creates stronger memories that are less likely to be forgotten. Learning in multiple, shorter sessions allows you to elaborate and form connections between ideas, which helps you retain more information and strengthen your memories. It also lets you revisit material you might have forgotten and give it a boost in your memory. Spacing out your learning during one week could look like this:



To learn more about mindset, metacognition, and memory, visit learning.uiowa.edu