**Handout: Study Tips for Efficiency**

Combine tips found here with the tips found in the reading, time management and study group handouts. Find what works for you and you.

Realize you will want to focus on what you are good at because that approach feels rewarding. **Push yourself to focus on your weaknesses –** it’s more efficient.

One of your main goals while in college is to process a large amount of content. Content comes at you in the form of lectures, books, handouts and PowerPoint. You need to take that information, extract the important points, integrate those points with material presented in class, THEN recall associated ideas and transfer this new material into your long-term memory.

A key point in managing all of this new material is that you have to efficiently process a large amount of information into your long term memory. Some material will be best managed through brute force memorization. Find a way that works for you (try ideas such as flashcards, writing out lists, drawing charts, etc.). You may memorize FASTER if you exercise while you are memorizing, incorporating kinesthetic learning. Kinesthetic examples include: Saying the concepts out loud, or moving/acting out the process. Visual learning includes drawing pictures, using color, or creating flow charts. There is a common misconception that we learn in one particular way, often referred to as our “learning style.” In fact, you may have a preferred style, but you can, and will, learn in many ways.

To learn efficiently, you must decrease extraneous inputs – that’s the coherence principle. The coherence principle (Mayer) says that extraneous material detracts from learning. This is why you should get rid of Facebook, Instant Messaging, e-mail alerts, and any electronic distraction. These additional forms of input will pull your concentration from what you are working on. You also need to get rid of as much noise as is practical. This includes kids, spouses, music, and television. You will gain efficiency; buy noise blocking headphones if you must. A few generations back professional schools wouldn’t take married students. Only a generation or two ago medical students were warned against the distraction of relationships and marriage.

Speaking of memories. . . Did you know that memory consolidation (transfer of memories from short term to long term memory) happens during sleep? This means that you should get a good night’s sleep AFTER a study session, before your next study session with the same material. Review the time management handout if you want to know more about why you need to sleep.

So, what should your ideal study sessions should look like? Spaced learning is better than massed learning – remember the old study about the postal workers who had to learn how to type? (Baddeley & Longman, 1978). It took students less than 2/3 the time to learn a new skill when they used spaced learning vs. massed learning. In this study, massed learning was 4 hours a day, every day, whereas spaced learning was 1 hour a day, every day. This could be the science that explains why you shouldn’t cram. Consistency is also key; develop a good habit or routine. This can make the difference on those days that you do not feel like studying. A great infographic that explains spaced learning is at: <https://www.learningscientists.org/spaced-practice>

But how can you effectively space learning with a demanding schedule? You can toggle between classes or between tasks within a course. The longest “chunk” of time recommended is 50 minutes followed by a 10-minute break. Literature suggests, however, that most adults have a much shorter attention span, perhaps closer to 20 minutes. Experiment with blocks ranging from 20 to 50 minutes. Then take a QUICK break and refocus on a new task if needed.

In an ideal world, you would attack each class with a three-phase strategy:

**1st phase** –a DAY OR TWO before class, in as non-distracting an environment as possible, students on their own (semantic memory) – survey first, question, then read. Your goal is not to memorize – mark what you don’t know. Quiz yourself as you go along (refer to the reading handout). Say the concepts out loud to get dual coding.

**2nd phase**:

After reading, get a night’s sleep where you get consolidation and integration of memories into long term memory. A nap is not quite a s good as a night’s sleep. Rest is not quite as good as a nap, yet still somewhat helpful.

**3rd phase:**

Students actively participate in your online class – now you have SPACED LEARNING rather than massed. We hope that you hear stories that illustrate the main facts and help you form episodic memories.

And now you should go home and calibrate your learning. Don’t start in with massed practice – figure out what you know at this point and what you need to focus on. We all think we know more than we do, and we are susceptible to illusions. Testing our knowledge using learning objectives or quiz questions helps calibrate what we can and can’t do and gives us a direction to focus.

What if you have sample tests to guide your study? IF you are using old tests or test questions FOCUS ON CONCEPTS found within these questions, including the distractors. These are often the high yield concepts.