THE INSTITUTE FOR LEARNING & TEACHING (TILT)

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What is the most effective study strategies you have used in the past?
UNDERSTANDING THE SCIENCE BEHIND LEARNING
THE SCIENCE OF LEARNING

**Neuroplasticity**
- Neurons in brain always making connections

**Impact of Emotions**
- The limbic system
- Shut off of higher level learning
- Slow down neuroplasticity

**Learning is ACTIVE**
- Dopamine
- Motivation

**Use it or Lose it**
- Neuronal pathways weaken
- Brain cells die over time
**SHORT TERM vs. LONG TERM memory**

**SHORT TERM**

★ Known as the working memory
  ○ Holds a few items for 20 - 45 seconds
  ○ Use it or lose it

★ Rehearsing, practicing, relearning can commit this information to long term memory

★ If information is not moved to LTM it gets erased or lost.

**LONG TERM**

- Info held from the 20s can last a lifetime
- Memories become vague over time because they go further into our subconscious.
- We must practice retrieving things held in this memory too.
Retrieval practice is a strategy that forces you to bring information to mind to enhance learning.

Recalling information forces us to pull our knowledge “out” and find out what we know at the current moment.
Common PASSIVE Study Strategies

- Highlight textbook & copy everything
- Reading notes = surface learning
- Using the same study strategies
- Study everything
- Study to pass this exam
- Cramming for an exam
RETRIEVAL PRACTICE

HOW?

- Commit to taking the “harder” route.
- Learn the material and then test your recall at separate times.
- Tailor your retrieval practices to the type of material/class you are learning.
- Combine retrieval strategies for optimal results.
Benefits

➤ Boost learning & improve performance

➤ Show what you know & what you don’t know

➤ Give you a reason to practice the most critical information that will appear on the actual exam

● Space Out Your Studying

● Highlight Muddiest Points

● ***Create a Study Guide***
Powerful Flashcards

1) Retrieve (don’t cheat!)

2) Re-order (shuffle and interleave)

3) Repeat (at least 3 times)
Short Term Memory to Long Term Memory

ACRONYMS
Creative Sentences
Rhymes & Songs
Sketch it out
Make it meaningful
Say it out loud
Make mistakes!
Take a break
Use your resources

- Your instructor is not the only source of information
- Teaching Assistants!
- If you are confused or skipped a concept
  - Attend office hours
  - Find where in the textbook that material is discussed
  - Find outside resources - Google, YouTube, etc.
  - Don’t forget to utilize tutoring, study group, etc.
## Collaborative Learning

<table>
<thead>
<tr>
<th>Form a study group</th>
<th>Participate in group discussions</th>
<th>Ask others how they understood the material</th>
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</thead>
<tbody>
<tr>
<td>Studying with other increase memory &amp; retention.</td>
<td>Whenever in class or in your study group, make it a point to participate.</td>
<td>Use your peers as a resource!</td>
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<tr>
<td>Getting different perspectives from clothes enhance your learning.</td>
<td>Be an active learner. Ask questions, work with others, plan for future exams, etc.</td>
<td>Ask your peers for study strategies &amp; techniques to understand materials better.</td>
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Contact Us

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Thank you