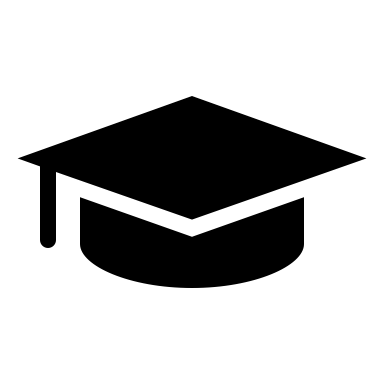
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**University Learning Center:**

**Crash Course Study Skills #10**

**Exercise**

Created by Megan Miller

**Overview of the Online Academic Makeover Workshops**

Thank you for taking an interest in the Online Academic Makeover Workshops! The University Learning Center at California State University, Fullerton is passionate about helping students learn how to learn. The goal of the online workshops created by the University Learning Center is to help students understand the value of fundamental concepts that are vital to student success throughout the college experience. In addition to the high impact practice of peer-to-peer tutoring, the online workshops enable students to learn student success secrets virtually anywhere at any point throughout the academic year.

To better support student learning, a workshop packet accompanies each online workshop. Each packet has a pre-reflection, guided notes, and a post-reflection. We encourage students to answer the prompts of the pre-reflection before viewing the workshop video. There are no correct or incorrect responses since the pre-reflection serves as a tool to help the workshop participant to consider themselves and focus on the workshop content that is most relevant to them. The guided notes are intended to help the workshop participant focus on the big ideas presented in the videos. Additional notes are recommended! The workshops are most effective when participants create meaning for themselves. The post-reflection is meant to be completed after the workshop video has been viewed. This section allows the workshop participant to check and see if they understood the main ideas from the workshop and make more personal connections while considering ways to apply what was learned.

The University Learning Center appreciates your interest in our online workshop series, and we hope you learn something new!

Happy Learning!

**The University Learning Center Team**

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**Exercise Online Workshop Pre-Reflection**

1. Do you take breaks while studying? Do you stand up, move around, take a walk?
2. Do you maintain an active lifestyle through consistent exercise?
3. How might an active lifestyle benefit your mind and body?
4. What types of exercise do you believe benefit your body?
5. What are you hoping to learn from the Papers and Essays Online Workshop? What questions do you have?

**Exercise Workshop Guided Notes**

* Exercise is crucial for keeping both your body and your brain healthy
* It’s also a simple way to improve your ability to learn and focus
* Exercise comes in many different shapes and forms, and regardless of your skill level or physical limitations, you can probably find something that gets your heart rate up- which can, in turn, improve your mind
* The brain’s ability to learn evolved right alongside movement
* “That which we call thinking is the evolutionary internalization of movement.”
  + Brains are for creatures that move
* “Use it or lose it” is a principle that applies to much of biology
  + Muscles start to atrophy
* In addition to keeping you healthy, getting your heartbeat elevated on a regular basis can also make you a better student

1. **How exactly does exercise help you become a better student?**

* Regular exercise improves your brain in 3 important ways

1. Optimizes the levels of neurotransmitters like serotonin, norepinephrine, and dopamine

* These are all crucial for learning

**Serotonin**: helps regulate your mood and keep you happy

**Norepinephrine**: amplifies signals related to attention and motivation

**Dopamine**: highly involved in learning, movement, and operating the brain’s reward center

* Regular exercise balances these neurotransmitters

1. Exercise can stimulate neurogenesis

**Neurogenesis**: the birth of new neurons from neural stem cells in the hippocampus

* The crucial combo for this brain optimization is regular exercise and constant learning

1. Exercise improves the ability of neurons to bind to one another
   * This is how new neural pathways are formed and how memories take hold
     + Brain-Derived Neurotrophic Factor (BDNF)
     + Enables learning

* Your brain naturally produces more BDNF when you learn new things and when you exercise
* Regular exercise can:
  + Improve your ability to focus
  + Helps you block out your distractions
  + Reduces stress

1. **How, exactly, should you exercise if you want to improve your brain’s performance?**

* Doing a workout or going for a run right before you start learning is a great idea
* How you exercise is up to you
  + You’ll get the best results by combining an elevated heart rate with complex, skill-based movement
* Beyond all else, just get started
  + Even going for a short walk once a day can have a lot of benefits
* Start small, do what you can, and focus on building the habit
  + If you build this habit, your brain will take care of the rest for you

**Exercise Online Workshop Post-Reflection**

1. What did you learn from the Exercise Online Workshop?
2. What was something from the Exercise Online Workshop that surprised you or you found to be the most interesting?
3. Which of the concept, method, or technique discussed in the Exercise Online Workshop do you think you would benefit the most from? Why?
4. Describe how you will apply what you learned from the Exercise Online Workshop.