**MCAT Prep Guideline**

There is no “one size fits all” best way to prepare for the “new” MCAT however, the following is a guideline you can consider as you move through your post bac year. This guide was prepared using input from Kaplan, former PBPM students from the last three cohorts, and information post bac program directors and advisors have shared from other institutions. **Information in bold should be priorities regarding timing and preparation.**

**Summer Session General Chemistry**

**Use the following to supplement your coursework this summer**:

* Kaplan syllabus <https://docs.google.com/spreadsheets/d/10TTX7LHU-8bPFyadcYZleq8B-2OB2_IasQJtjP_eBmI/edit#gid=1336891132> . These additional quick and relevant resources should help reinforce concepts that you may struggle with during the summer.
* Students have also found Kahn Academy materials useful: <https://www.khanacademy.org/science/chemistry> .

**August break**

Although we want you to rest and enjoy yourself during your break, students from the last cohort recommended making better use of this time than they did by reviewing Kaplan general chemistry and reviewing/learning psychology and sociology concepts covered on the MCAT. In addition to the content contained in your E-Books, some Kahn Academy resources others found helpful are:

* <https://www.khanacademy.org/test-prep/mcat#behavior>
* <https://www.khanacademy.org/test-prep/mcat/social-sciences-practice>

**Fall semester**

* **Use your Kaplan post bac syllabus and E-Books to follow along with your coursework**
* **Note: while you may not need to memorize formulas for your physics exams you will need to have them memorized for the MCAT**
* **Become familiar with working through timed passages by practicing! Consider doing one CARS passage a day**
* Continue/review general chemistry throughout the semester
* Begin reviewing other material not covered in the program (for example behavioral psychology) using Kaplan, AAMC, and Kahn Academy resources, podcasts or other materials of your choice
* Register for the MCAT test (we will provide the ideal date once the schedule is released for next year)

Group sessions: students suggest holding group sessions or joining smaller study groups to help keep each on track preparing for the MCAT in addition to your coursework.

**Winter Break**

Week 1:

Take some time to relax, reconnect with loved ones, and rest!

Begin learning how to draw and/or identify an amino acid structure or abbreviation - this is a huge component of both Biochemistry and the MCAT. You cannot answer complex problems without this essential basic vocabulary so start to memorize the 20 amino acids.

* **Draw out all structures and label 2x per day**
* **Must memorize 3 and 1 letter abbreviations**
* Would be helpful to memorize pKas of side chains
* It is a good idea to draw out and label the amino acids and put them up somewhere you will see them every day.
* Watch this (and other) videos for more background information: <https://www.khanacademy.org/test-prep/mcat/biomolecules/amino-acids-and-proteins1/v/classification-amino-acids>

Week 2:

Continue to draw and label the 20 amino acids 2x per day

If you haven’t already, begin reviewing Psychology/Sociology

Choose at *least* 1 of 3 Options:

1. **Watch** the Kaplan MCAT/Kahn Academy (Foundational Concepts 6-10) videos

<https://www.khanacademy.org/test-prep/mcat>

2. **Listen** to a free Intro Psychology course podcast (there are multiple available on iTunes)

3. **Read** the Kaplan MCAT Psych/Soc. Prep book

If you have already reviewed general chemistry and psychology/sociology then you might consider reading your Biology E-Book to go over concepts not covered in the first semester.

Week 3:

* Read the entire Kaplan General Chemistry, Psychology/Sociology and/or Biology E-Books
* **Identify and overcome weak areas**
* Attempt the multiple-choice questions within the chapters or create quizzes.
* Review questions missed and thoroughly read explanations in the back of the book.

Week 4:

* **Wrap up General Chemistry, Psychology/Sociology and/or Biology review**
* **Draw amino acids and label until comfortable**

Take a *full length* diagnostic/practice exam before the spring semester begins and *under the same conditions and timing* as the “real” exam. You can do this on your own or with your classmates in the clinics we will host the week before spring semester starts.

* **We suggest taking the Kaplan exams first and saving the AAMC test for closer to the exam date.**
* **When you take any of the full length practice exams be sure to take it at the same time and under the same conditions as you would on test day: no extra breaks, use of phone or drinking during the exam etc…to become familiar with the discipline and stamina it takes to complete the exam.**

**Tips for Memorization**

* Using the flashcards you made: **always test yourself**.
  + That is, don't just glance at all the basic info on say Asparagine (the name, the abbreviations Asn and N, and the structure). Start with one thing (e.g. the name) and try to recall the other three before checking. Even failure here is useful.
  + Just glancing over the flashcards is much less efficient than forcing yourself (uncomfortably) to attempt [active recall](https://en.wikipedia.org/wiki/Active_recall). This leverages the [testing effect](https://en.wikipedia.org/wiki/Testing_effect).
    - Advice from Gabriel Wyner, author of "[Fluent Forever](https://www.amazon.com/Fluent-Forever-Learn-Language-Forget/dp/0385348118)" (on learning foreign languages): "When you study by reading [something] multiple times, you’re practicing reading, not recall. If you want to get better at recalling something, you should practice recalling it.”
    - In fact, just glancing over the material can be detrimental, leading to "false fluency."
    - As your UVA colleague Daniel Willingham [puts it](https://www.aft.org/periodical/american-educator/winter-2003-2004/ask-cognitive-scientist): "‘Familiarity’ fools our mind into thinking we know more than we do.”  That's "Why Students Think They Understand—When They Don't" (the title of his article).
  + Sometimes start with the structures and go the other way. Change it up.
* Active creation & recreation: **make and remake the material.**
  + Make your own flashcards. It's more effective than using premade ones.
  + Also get a cheap new O-chem modeling set (say, [this one](https://www.amazon.com/LearnOn-Organic-Chemistry-Molecular-Students/dp/B015JJ6CWG) on Amazon) and make a model of each amino acid, saying (or singing!) its name and abbreviations.
    - Then take a picture with the name & abbreviations in a different place and with any other memory hook (e.g., a piece of asparagus for Asparagine).
    - Multiple sensory hooks make the information more retrievable. Just moving to a different location in your house or apartment to make & photograph the next model is helpful.
    - Also, silly/funny memory hooks are extremely effective. Incorporating a piece of asparagus into the process with Asparagine, for instance, is a no-brainer.
    - This is how every "memory athlete" memorizes say a full deck of randomly shuffled cards in 5 minutes. There's no time for spaced repetition. So you have to have a system of making funny associations. See, for instance, Joshua Foer's tale of winning the U.S.A. Memory Championship in this [NY Times article](https://archive.nytimes.com/www.nytimes.com/interactive/2011/02/20/magazine/mind-secrets.html).
    - This particular technique of making funny associations has the side benefit of making the process more fun and less stressful (not just memorizing the amino acids, but the whole task of studying over the break). There are good knock-on effects when the studying process is "game-ified" in a personal way (not game-ification in the sense of competitions, but rather in the sense of literally making the process a personal game).
  + Group and regroup (e.g., by key features [per this chart](https://en.wikipedia.org/wiki/Proteinogenic_amino_acid) on Wikipedia).
    - This builds logical connections to previously mastered information and grows the fact base.
* Spaced repetition: you need many repetitions to get all the amino acids, no doubt. But you can space out the review further over time (a la a [Leitner box](https://en.wikipedia.org/wiki/Leitner_system), which automatically increases the interval between reps on things you remember).
  + It's actually more effective to allow more forgetting and struggle with the active recall (having the thing on the "tip of the tongue"). This is [desirable difficulty](https://en.wikipedia.org/wiki/Desirable_difficulty).

**Spring Semester**

* At the beginning of the semester, review your academic schedule to identify and hold several days throughout the semester where you can take full-length timed exams. The MCAT exam is typically held in the morning so start at 8am and finish in the afternoon rather than the afternoon into the evening.
* Continue reviewing Biology concepts not covered in the second semester (E-Books/Kahn Academy)
* Several practice MCAT Labs will be offered after your spring semester finals, so plan to take a few more practice exams then.