Preparing for the MCAT

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**Note from Beth:** Each MCAT has a different collection of questions, so one person’s experience of that exam will not be yours. A recent student found what she thought were only 2 sets of physics questions on her 2016 MCAT but lots of organic chemistry. Some students have more questions on evolutionary biology and less on other aspects of biology. It is not predictable. Nonetheless, we offer this guide as one person’s view of the MCAT preparation. I have inserted relevant course numbers into Mack’s suggestions; other suggestions from me are in brackets.

Material from RELEVANT COURSES that Mack took (he says: there may be better options to help with the MCAT but courses shouldn’t necessarily be taken because they help with the MCAT) [Beth adds: I’ve added other options in []).

**Biology:** Biol 130 and 150 – cellular processes are important and this course gives a good overview of many important biological concepts. Examining data is extremely important on the MCAT, so the introduction of many types of graphs from Biology 130 [and Biology 170] is useful. Development is a big topic and so are organ systems (Bio150). Genetics (Bio260): Inheritance, replication, cell cycle, gene expression, graph interpretation, and evolution are all important topics on the MCAT. Evolutionary biology has similar concepts to genetics. Microbiology helped me understand cell life [Cell Biology would do this as well]. Immunology was helpful for the lab techniques using parts of the immune system, especially involving antibodies. The immune system is also a popular topic. Molecular biology: Teaches lab techniques very well, which again is useful. After Biochem and Genetics, much of the class is review but it still adds knowledge and understanding which is always good.

**Social Science:** Cultural anthropology (Anth 110) was useful because it touches on a handful of topics in sociology. Psychopathology [Psych 250]: There is an emphasis on mental illnesses so psychopath covers a lot of these concepts. Social Psychology [Psych 270] is useful. Being able to interpret what graphs in psych experiments mean is important. I think it is deceptive because the graphs seem “easy” but in reality applying concepts to them can be tricky. Know the sensory systems for the psych section. [Intro gender studies or health psych are other options, Ansfield says don’t take both health psych and social psych, just one or the other].

**Chemistry:** DIMENSIONAL ANALYSIS [carrying units through equations properly] IS MAYBE THE MOST IMPORTANT COMPONENT OF ANY MATH THAT YOU NEED TO KNOW! Also, understanding almost all the topics is a must as almost all are tested and they influence physics, orgo, and biochem. From what I read, the amount of straight orgo that is on the exam varies from test to test [by A LOT]. However, biochemical reactions are often approached from an organic standpoint. Knowing orgo will help with biochem questions and the questions that are orgo-based. Critical thinking that comes from classes like Orgo, genetics, and biochem is good practice for harder questions. [Chem 116, 250, 252, 340 are required, in that order]

**Physics:** [141 and 151 are required] - Again, dimensional analysis is extremely important. Every topic covered in these courses is useful to understand. I was worried about mirrors and lens the few days before the exam, but those are important to know, especially in relation to the eye. Lots of questions in physics and chemistry can be related to biological systems, and that is often how they are framed.

**Biochem:** You HAVE to know amino acids by structure, name, three letter name, and one letter name (these questions are a guarantee). There are tricky graphs in biochem that pop up in chem and bio sections. I never memorized a single pathway, but if you can understand the general trends of how pathways are controlled and why they are used, then you can apply it. Also, lab techniques and the analysis of their results are used on the MCAT. Biochem II is not pertinent for the MCAT.

**MY STUDY STRATEGY:**

Books: Kaplan, Exam krackers 101 verbal reasoning, Kaplan flashcards, and Exam krackers audio osmosis, all available questions from AAMC

My timeline for studying:

1. Week before fall term: Kaplan test (495 score) over course of a few days and reviewed errors or uncertainties
2. Fall term: Read and take notes on 3 chapters of every book and then reviewed them. Read next 3 and reviewed previous six (I didn’t read the CARS book)
3. First week of Winter break: (I fell behind) Read every book w/out notes and reviewed all 12 chapters
4. Took AAMC exam (one day, exam conditions, 80-90% correct in each category) to gauge progress, but more importantly GET A FEEL FOR MCAT QUESTIONS (I took a day off after doing practice tests before reviewing questions)
5. Reviewed all sections
6. Took Kaplan test 2 (w/ exam conditions, 502) and reviewed questions
7. Reviewed all sections, started with materials I had trouble with, and started doing AAMC practice questions
8. Took AAMC test 2 (exam conditions, around 82nd percentile)
9. Winter term starts: review all, hit problem materials, and do most other AAMC practice problems

By the end of studying, doing full-length exams and practice problems, I had answered ~1,500 multiple choice questions. Practice makes permanent, so make sure to try hard on all problems.

**TIPS AND THINGS THAT I THINK HELPED:**

* **After every practice test make sure to review every problem**
	+ If you knew completely, there isn’t a need to review it
	+ But if you even have a little doubt, review the concepts
	+ **Write down the material the information you find when getting questions wrong**
		- The information will stick better and you can refer back to it later. Going over it once doesn’t mean you know it.
* **Do a couple of full length tests as if they were the real thing**
	+ Pressure is important
		- If you feel too comfortable in your chair at home, change to a more uncomfortable one
		- Maybe go to the library so you are out of your element
	+ You have to be able to know if you need to improve speed
* For CARS, read for the goal of passage and be critical of the author (audio osmosis is good for CARS strategies)
	+ You will pick up the details of the passage when you are judging it
	+ Also, you will keep interest
* Count to 5 in between each CARS passages
	+ Don’t think about old questions while reading the next passage
* Reduce stress prior to exam time as much as possible
	+ I came home for a couple of days before the exam and didn’t think about doing any homework
	+ I went to the exam center the day prior so I didn’t have to worry about finding it or hitting unforeseen construction
	+ I made sure I had everything prepped the night before (although I didn’t eat my lunch but I don’t get hungry when pressured)
* Get sleep
	+ A week before the exam, keep an earlier bed time to be able to get to sleep (I was able to fall asleep at 10pm the night before)
	+ Reduce stress
* Use practice CARS questions to pace your reading
	+ There is enough time given for a below average speed reader to complete this section
	+ Searching for answers within the passage takes the most time and you want to answer all the questions, so skipping a question that you don’t know where it is in the passage is probably more beneficial than answering it
* Do a couple CARS questions every day or every other day and time yourself
* Do lots of practice problems
	+ This will reduce the number of unfamiliar questions
* Understand dimensional analysis and unit conversion
	+ I only memorized a couple of equations for the exam (chose a strategy that you feel comfortable with)
	+ Many questions involving math will be solvable by cancelling units
	+ Other math questions can be solved by understanding relationship
* When stuck on a question, eliminate answers
* **Know amino acids by structure and all three types of names**
* Have something fun to do in the day(s) after the test

**THINGS I WISH I WOULD HAVE DONE:**

* Don’t get too critical about CARS practice questions from AAMC
	+ When I was doing the extra CARS practice questions, I was getting around 2/3rds correct. However, the difficulty level doesn’t necessarily match the exam, and casually doing questions may not be a good indication of exam performance
	+ But still do them for practice
* Be cautious when looking at people’s scores online because it never helps
	+ People lie
	+ Some people did well on practice tests and not on the real thing, or vice versa
		- There is never a good indication (and for me it only made me more anxious)