Advice on MCAT Preparation for SIE students

The MCAT2015 is quite different from the old MCAT exam. The more you know about the MCAT, and the earlier you begin to familiarize yourself with it, the more successful you will be. Here is a brief listing of Dr. Presson’s advice. If you have any suggestions or requests to improve this email Dr. Presson at jpresson@umd.edu.

The importance of the MCAT for admission.

The MCAT is one of three legs upon which your application to medical school depends.

- High grades in a range of rigorous science courses
- High quality, consistent clinical experience interacting with patients and physicians
- A high MCAT score.

Our knowledge of what MCAT score you need is still in a state of flux, given that we only have a couple years of data on the new MCAT. SIE recommends you aim for a score in the 80th percentile, although students with lower scores certainly do get admitted. To attain a high MCAT score, SIE recommends an intensive list of courses. UMD faculty have examined the content of the new MCAT in detail. The courses recommended by SIE cover the large breadth of topics you could potentially see on any given MCAT. You might be able to learn this material on your own. For most students, however, mastering the content is more productive in a structured course.

Overall Preparation Guide

- **Start preparing early.** You don’t have to do intensive content review early, but you should begin looking at MCAT material as soon as you begin taking science courses. This will help you to understand the logic of the SIE recommended course plan, and help you to see in advance how what you learn in courses will be applied on the exam.
- **Plan for 4 – 6 months of intensive preparation.** You cannot expect to do your “studying” for the MCAT in 2 – 3 months. Beyond the large breadth of content coverage, the MCAT requires you to apply what you know in interdisciplinary contexts. You cannot expect to master these skills in a couple months. Set aside time for intensive review and practice tests 4 – 6 months before your selected test date.
- **Take your time.** SIE students are, understandably, often in a hurry. You feel you MUST matriculate to medical school as soon as possible to get on with your goals. For most students a rushed time line does not work. Medical schools don’t want applicants who obviously are in a hurry. They want high quality, well prepared applicants. Many students want to squeeze in summer courses, skip over courses they took before but did poorly in, or otherwise just want to hurry things up. When you are in a hurry, take the long way. If you take short cuts you are not likely to reach your goal.
Use aamc.org material.

- I would not disparage commercial products, but AAMC wrote the exam, and theirs is the only material that is truly pertinent. Here are some links to what AAMC has. Some of this is free, some costs money. Take time to explore the AAMC MCAT Website: https://students-residents.aamc.org/applying-medical-school/taking-mcatexam/.

- Use the MSAR - Medical School Admission Requirements. The MSAR will help you identify schools and what MCAT scores they typically look for. See Website: https://students-residents.aamc.org/applying-medical-school/applyingmedical-school-process/deciding-where-apply/medical-school-admissionrequirements/

- Everything about the MCAT. See Website: https://students-residents.aamc.org/applying-medical-school/taking-mcat-exam/

- What's on the MCAT? Available in pdf and graphical format. This provides the detailed list of topics covered overall on the MCAT. It will help you focus on your course content, and help you appreciate the topics and rigor in SIE courses. Don’t expect to learn all of this content in courses. You will have to learn some content on your own. See Website: https://students-residents.aamc.org/applying-medicalschool/article/understand-mcat-exam/
  - The best source for content review is actually college level textbooks. You hopefully have all of your college science textbooks but if not you can buy old used editions online. Use the index and table of contents in the texts to find the content material you are not confident of. The figures in textbooks are particularly useful. It is my view that the content reviews by MCAT PREP course publishers are not as good.
  - The MCAT content requires understanding of concepts, mechanism, processes, and principles more than isolated facts. You will see this in the MCAT content guide. The overarching principles you need to understand are explicitly stated.
  - When you go through the content list focus on the topics you do NOT understand. Cross out the topics you think you understand well.
  - If the topics you do not understand have already been covered in your courses, begin gradually to go back and review these difficult topics, using textbooks primarily. You will need to plan and time your MCAT content review to cover all of these.
  - If the topics will be covered in future courses, pay special attention to them when they come up.
  - Do NOT expect all of the content to be covered in your SIE courses or other science coursework. SIE courses are the best source for learning content, but there will be content on the MCAT not covered in any course you have taken.

Read, Read, Read

- Read broadly for the critical reasoning section.
  - Read diverse, but difficult material in areas with which you are not already familiar.
  - Convince yourself you LIKE to do this, and do it more.
• Read and critique scientific papers in basic science, especially in biological and life sciences.
  o The MCAT practice exams have summaries of research papers that you must read, understand, and critique. They list the articles from which the summaries came. That is one place to start practice reading.
  o SIE offers seminar courses in scientific reading at least once a year to help students prepare.
  o Another good approach would be to choose a basic research area related to something you are interested in or something from one of your courses. Ask the faculty for suggested research papers and use those to start reading heavily in a particular area. Use Google Scholar to find papers, and UMD research portal to download papers from home.

AAMC Practice MCAT Material. Let me know if these are not clear. I can annotate the list so you know more what to buy when. See Website: https://studentsresidents.aamc.org/applying-medical-school/article/online-practice-mcat-exam/ I strongly suggest that you buy some practice items early and get a feeling for the kinds of questions in each section. You can enter each of these assessments multiple times once you have purchased them so with some judicious planning you get a lot out of each purchase. Also, during practice you have the option to turn on answer explanations, that tell you why AAMC picked the answer. Finally, these assessments are set up almost exactly like the actual MCAT so you get used to the format. This can be cumbersome to navigate, but still very useful.

Here is one possible time table for using the AAMC practice material. You have to pay attention to what AAMC calls each practice assessment.

• Topic section banks.
• Free mini test e-book
• Official guide questions
• Sample test

1. 3 or 4 months before you actually take the MCAT I strongly suggest getting both full length practice tests and use them to the fullest. Don’t take these too early on. Use other practice material early and use these as full simulations of the real exam closer to your test date. At least once sit down with one of these and go all the way thru it for the first time, simulating the actual test. To my knowledge these are the only two full length scored MCAT practice tests currently available. By the time you take the MCAT AAMC may have more.
Another good source for practice material is Kahn Academy. AAMC contracted with Kahn Academy to produce practice material. The material is high quality and free. See Website: https://www.khanacademy.org/testprep/mcat

**MCAT Prep Courses.** These can be helpful but not necessary. Many of the commercial options are largely practice material and test taking strategies. I am not sure if they have really caught up with the new MCAT material and approach though. UMD offers the *UMD MCAT Preparation Program* every spring, which involves PhD faculty doing material review and AAMC practice material. See Website: https://oes.umd.edu/incoming-current-visitingstudents/umd-mcat-preparation-program