

**Science in the Evening
Medical School Recommended Plan of Study and Advice on MCAT Preparation**

Note: All pre-requisites must be satisfied. A course **cannot** be taken in the same semester as it's pre-requisite. For course pre-requisites, see Website: sie.umd.edu and look under "Course Information".

Plan 1. Optimal preparation for MCAT with coursework starting any Fall semester			
Semester	#	Courses	
Fall	1	BSCI170 & 171 Principles of Cellular and Molecular Biology	CHEM131/132 Gen Chem 1
Spring	2	BSCI222 Genetics	CHEM231/232 Orgo 1
Summer Session *	3	PHYS121	PHYS122
Fall	4	BSCI223 General Microbiology	CHEM241/242 Orgo 2
Spring	5	CHEM271/272 Gen Chem 2	BSCI330 Cell Biology
Fall	6	BSCI Scientific Readings or other upper level BSCI	BCHM463 Biochem
Spring	7	BSCI440 Physiology Prepare for MCAT; Consider the <i>UMD MCAT Preparation Program</i> May take MCAT; June Apply	STAT464 Biostat;
Glide year	8	Consult with Dr. Presson; take courses to improve academic record.	

Plan 2. Preparation for the MCAT with coursework starting any Summer Session.			
This schedule can be effective if you have experience in reading & critiquing scientific literature and knowledge of statistics, but will likely lead to less effective MCAT preparation than plan 1.			
Semester	#	Courses	
Summer Session *	1	CHEM131/132 Gen Chem 1	
Fall	2	BSCI170 & 171 Principles of Cellular and Molecular Biology	CHEM231/232 Orgo 1
Spring	3	BSCI223 Microbiology	CHEM241/242 Orgo 2
Summer Session *	4	PHYS121	PHYS122
Fall	5	BSCI330 Cell Biology	CHEM271/272 Gen Chem 2
Winter Term	6	BSCI222 Genetics	
Spring	7	BSCI440 Physiology Prepare for MCAT; Consider the <i>UMD MCAT Preparation Program</i> May take MCAT; June Apply	BCHM463 Biochem
Glide year	8	Consult with Dr. Presson; take courses to improve academic record.	

* SIE is a fall/spring program and the tuition and fees associated with SIE are applicable **ONLY** for fall/spring. A student **MAY** begin in Summer Session, but would pay the Summer Session tuition/fees based on their residency classification. Residency determinations are made according to the [Board of Regents Policy on Student Residency Classification](#). For more information on Summer Session tuition & fees, [click here](#).

Advice on MCAT Preparation for SIE students

The MCAT2015 is quite different from the old 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.

- **Start Early.** You don't have to do intensive content review early, but you should begin looking at MCAT material as soon as you start taking courses in SIE. 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.
- **Use [aamc.org](https://students-residents.aamc.org/applying-medical-school/taking-mcatexam/) 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/>.
 - **Medical School Admission Requirements (MSAR)** that 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/applyingmedical-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.
 - Again, do NOT expect all of the content to be covered in your SIE courses. SIE courses are the best source for learning content, but they are basic science courses not MCAT prep courses.
- **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.
 1. Topic section banks.
 2. Free mini test e-book
 3. Official guide questions
 4. Sample test
 5. 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 get these two 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>
- **Practice reading and critiquing research papers in *basic biomedical research*.** Basic research is not applied, clinical research. Basic research is investigations into the fundamental mechanisms in biological systems.

- 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.
- SIE offers seminar courses in scientific reading at least once a year to help students prepare.
- 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 port to download papers from home.
- **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>