

Advising Course Plan - Health Sciences Major - Medical School Interest

Medical School Interest (MD & DO)

As minimal preparation for medical school, you should complete the following: Biology I & II (BIOL 141P & BIOL 142P); General Chemistry I & II (CHEM 141P & CHEM 142P); Organic Chemistry I & II (CHEM 201 & CHEM 301); Biochemistry I (CHEM 204; College Physics I & II (PHYS 121P & PHYS 122P) or University Physics I & II (PHYS 141P & PHYS 142P - which are calculus-based); a Statistics course (PUBH 308Q); Psychology (PSYC 101S); Sociology (SOCI 101S); FSEM 100; and another writing course (generally, another English course). In addition, make sure you satisfy all the Health Sciences (HLSC) major requirements listed in the course catalog (the plan below should allow you to do this, and it includes the courses listed above).

If your course scheduling/planning permits and you have another area of interest, you may wish to pursue a related minor, such as Chemistry, Public Health, or Psychology, for example.

Students will apply to medical programs using the American Medical College Application Service (AMCAS):

<https://www.aamc.org/students/applying/amcas/>

or the American Association of Colleges of Osteopathic Medicine (AACOM):

<http://www.aacom.org/become-a-doctor> (<http://www.aacom.org/become-a-doctor/>)

Most MD programs expect at least a 3.5 GPA, with many targeting a 3.7 in order to be a competitive applicant.

Most DO programs expect at least a 3.3 GPA, with some accepting students with GPAs closer to 3.1.

The key is to begin working on maintaining a strong GPA from the beginning. It becomes more and more challenging to bring up lower GPAs as time progresses in your undergraduate career.

Requirements may differ from the ones below; depending on the medical program(s) in which you may be interested, so please make sure to look at various program requirements for different universities. We highly recommend you begin looking at universities' requirements during your 1st year as an undergraduate to better prepare you for medical programs.

Option 1 (Premed with Minor in Chemistry):

This track is ideal if you are planning to take the MCAT during the summer following Third Year and is recommended for academically strong students.

If you believe taking both BIOL and CHEM in Year 1 is too challenging, then consider option 2.

Students interested in applying for medical school may consider a minor in Chemistry as they will have to take 5 chemistry courses. Therefore, they may benefit from taking one more 200-level CHEM course and minoring in Chemistry, in addition to a common core of prerequisite coursework (*).

First Year

Fall		Units
BIOL 141P ^{1,*}	Introductory Biology I: Biochemistry, Cell Biology and Molecular Genetics	1
CHEM 141P [*]	General Chemistry I	1
FSEM 100 ¹	First Year Seminar (unless transfer student)	1
HLSC 119V	Health and Wellness	1
Term Units		4
Spring		
BIOL 142P ^{1,*}	Introductory Biology II: Animal and Plant Physiology	1
CHEM 142P [*]	General Chemistry II	1
MATH 141Q ^{2,*}	Calculus I with Analytic Geometry (required for Chemistry minor)	1
General Education requirement ¹		1
Term Units		4

Second Year

Fall		Units
MATH 141Q should be taken during the fall if it has not been taken in First Year.		
HLSC 201 ¹	Anatomy Physiology I	1
CHEM 201 ^{1,*}	Organic Chemistry I	1
BIOL 301 or 302 ^{3,*}	Microbiology Genetics	1

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SOCI 101S [*]	Understanding Society: An Introduction to Sociology (or General Education requirement (A, B, H, L course))	1
	Term Units	4
Spring		
HLSC 202 ¹	Anatomy and Physiology II	1
CHEM 301 ^{1,*}	Organic Chemistry II (counts as HLSC elective)	1
General Education requirement (A, B, H, L course) ¹		1
PSYC 101S ¹	Introduction to Psychology	1
	Term Units	4
Summer		
Take the MCAT exam in preparation for medical school applications - by the end of summer before Fourth Year. *Recommendation: Study for MCAT during Third Year and take it no later than July 31st. Also aim to have completed your medical school applications during the summer before Fourth Year.		
	Term Units	0
Third Year		
Fall		
Junior Seminar must be taken during this year.		
PHYS 121P or 141P [*]	College Physics I University Physics I	1
Elective		1
Junior Seminar ¹		1
CHEM 204 [*]	Biochemistry I	1
	Term Units	4
Spring		
HLSC 498 ¹	Senior Research Proposal	1
PHYS 122P or 142P [*]	College Physics II University Physics II	1
PUBH 308Q	Health and Medical Statistics	1
HLSC 375 ^{1,*}	Community Health Care Seminar (HLSC elective; recommended)	0.5
General Education requirement (A, B, H, L course) ¹		1
	Term Units	4.5
Fourth Year		
Fall		
HLSC 499 ¹	Senior Research Project	1
HLSC 411 or PHIL 316V ^{1,5}	Exercise Physiology (HLSC elective; or other Personal & Social Responsibility course (R, E, W, D, J course)) Bio-Medical Ethics	1
Chemistry minor requirement: CHEM 200+ level course ^{4,*}		1
PUBH 140V	Introduction to Public Health	1
PUBH 376	Health Coach Practicum I	0.5
	Term Units	4.5
Spring		
HLSC 411 or PHIL 316V ^{1,5}	Exercise Physiology (HLSC elective; or other Personal & Social Responsibility course (R, E, W, D, J course)) Bio-Medical Ethics	1
General Education requirement (A, B, H, L course) ¹		1
PUBH 377	Health Coach Practicum II	0.5
Elective		.5
	Term Units	3

Total Unit: 32

- 1 Required for HLSC major.
- 2 MATH 130 and MATH 131Q may be taken in place of MATH 141Q.
- 3 Excludes CHEM 285, CHEM 385, CHEM 485, CHEM 498, CHEM 499.
- 4 PHIL 316V or equivalent counts as an HLSC elective; or may take another Personal & Social Responsibility course (R,E,W,D,J course).
- * Common core of prerequisite course work.

Useful resources for Biochemistry when preparing for the MCAT, if you take Option 2 with Biochemistry after the MCAT exam:

<http://biochemweb.net/>

http://www.wikipremed.com/resource_links.php

<http://www.stetson.edu/artsci/pre-health/medicine.php>

An important note regarding Biochemistry content of the new MCAT:

- Biomolecules have unique properties that determine how they contribute to the structure and function of cells, and how they participate in the processes necessary to maintain life.
- Highly-organized assemblies of molecules, cells, and organs interact to carry out the functions of living organisms.
- Complex systems of tissues and organs sense the internal and external environments of multicellular organisms, and through integrated functioning, maintain a stable internal environment within an ever-changing external environment.
- Complex living organisms transport materials, sense their environment, process signals, and respond to changes using processes that can be understood in terms of physical principles.
- The principles that govern chemical interactions and reactions form the basis for a broader understanding of the molecular dynamics of living systems.

These concepts are addressed in the Intro BIOL and CHEM courses, as well as Organic Chem. In addition, some upper-level BIOL courses cover some of these concepts. Examples of such courses include General Physiology, Molecular Biology, Cancer Biology, and (less so) Developmental Biology. We recommend you take at least one of these courses as an elective.