

Pre-Medical Studies at Winthrop University

Pre – Medical students at Winthrop University select a major in one of the academic departments. Because of the large number of undergraduate biology and chemistry courses required by Medical schools, most students choose to major in Biology or Chemistry (See Note 1) However talented students with strong science backgrounds whose primary interests lie in another academic area are encouraged to major in that area, provided that they can still take the requisite science courses. Students should maintain a grade-point-average above 3.5 (out of 4.0), and take a sequence of courses designed to prepare them to take the Medical College Admission Test (MCAT) in the spring of their junior year, as shown in the schedule below.

Freshman Year: (See Note 2)

Fall

Principles of Biology [BIOL 203 & 204]
Freshman Chemistry I [CHEM 105]
Pre-Calculus Math or Calculus I (See Note 2)
[MATH 151 or 105]
Freshman Writing I [WRIT 101]
Principles of the Learning Academy [ACAD 101]
Foreign Language I
Freshman Seminar in Biology [BIOL 202]

Spring

Botany or Zoology [BIOL 205 or 206]
Freshman Chemistry II [CHEM 106, 108]
Calculus I or Statistics [MATH 105 or MATH 141]
The Human Experience [HMXP 102]
Foreign Language II

Sophomore Year: (See Note 3)

Fall

Botany, Zoology, or Scientific Process in Biology
[BIOL 205, 206, or 300]
Organic Chemistry I [CHEM 301]
Calculus I or Statistics [MATH 105 or MATH 141]
[CRTW 201]
Psychology 101 or Sociology 201
Elective

Spring

Botany, Zoology, or Scientific Process in Biology
[BIOL 205, 206, or 300]
Organic Chemistry II [CHEM 302, 304]
Biology Area Elective (see Note 3)
Microbiology [BIOL 310] or Human Genetics [BIOL 316]
Elective

Junior Year:

Fall

Biology Area Elective
Genetics [BIOL 317] or Cell Biology [BIOL 315]
Physics I [PHYS 201 or 211]
Biology Elective Suggested:
Microbiology [BIOL 310] or Histology [BIOL 321]
Psychology 101 or Sociology 201
Elective

Spring

Human Physiology [BIOL 308]
Cell Biology Elective Suggested:
Physics II [PHYS 202 or 212]
Cell Biology, Developmental Biology or Immunology
[BIOL 315, 322, or 522]
Elective
Elective
Take MCAT in April or early summer

NOTES:

1. During your senior year be sure to take Anatomy [BIOL 307] and Biochemistry [CHEM 520 or CHEM 523, 524, & 525]. Other possible biology electives include Human Genetics [BIOL 517], Mechanisms of Disease [BIOL], Bone Biology [BIOL528], and Stem Cell Biol. [BIOL 529].
2. Approximately 50% of matriculating medical students majored in Biology, 25% in Chemistry and 25% in other majors.
3. It is recommended that only very strong students "double up" with Biology 300 and another biology course; Organic Chemistry and Biology 300 together constitute a heavy course load.
4. Because S.C. has two state - supported medical schools, all S.C. resident students should apply to both USCSM in Columbia and to MUSC in Charleston, whether or not they plan to apply to out - of - state public or private schools. The requirements vary slightly from school to school, but the following are recommended by both USCSM and M.U.S.

Use these guidelines to develop an appropriate program of study in consultation with your advisor.

For further information contact:

Winthrop University
Biology Department
Rock Hill, SC 29733
Telephone: 803 – 323 -2111

Suggestions for Getting Accepted into Medical School

ACADEMICS

1. Schedule your courses so you will be ready to take the MCAT at the end of your Junior year. This means you need to finish two semesters of General Chemistry, two semesters of Organic Chemistry, two semesters of Physics and Anatomy and Physiology.
2. Do not shy away from difficult courses. Take Biochemistry, Immunology, Histology, Cell Biology, etc. The first two semesters of medical school you will take Gross Anatomy, Biochemistry, Histology, Microbiology, and Pathophysiology. Your chances of success are much better if this is the second time you have seen this material.
3. Study hard and make no grade below a B. In fact at least half your grades need to be at least an A. The average undergraduate GPA is around 3.5 to 3.6. You can recover from a C or two, but that is about it. And even then you will be asked to explain what was going on that lead to these grades.

MEDICAL COLLEGE ADMISSION TEST (MCAT)

4. Study for the MCAT in advance. You must prepare to take this test. Do NOT attempt to take the MCAT without lots of advanced study and preparation. At the very least get hold of some study guides (books, CDs, etc.) and review your notes and textbooks from the appropriate courses. Do NOT sell your Physics, Organic Chemistry, or Anatomy & Physiology textbooks until after you finish the MCAT. You may want to invest (\$800 to \$1000) in a review course (Kaplan or Princeton Review). Whatever your approach, you MUST study for this test. Average MCAT is around 28 to 29. You need minimum of 9 on each section (27 is below average). To get application and information about MCAT and MCAS: www.aamc.org

OTHER IMPORTANT WAYS TO PREPARE

5. Start right now to seek out important, meaningful opportunities to gain practical experience in the medical profession. Of course, any experience is helpful, but it is in your best interest to make it a “powerful” experience. Seek out internships at VA hospitals and clinics (USCSM uses these in their required curriculum), apply for summer research opportunities at medical schools or large universities – name recognition helps. Publish a paper or give a research presentation. Accumulate and document as many hours in as many different sub -specialties as possible. Remember, USCSM prides itself on turning out primary -care physicians. Start early and work your way into roles of leadership and responsibility as much as possible.
6. Do a thorough self - evaluation. List your strengths and weaknesses. Ask yourself why do you want to be a doctor? Why will you make a good doctor? What strengths do you have that lead you to believe that you will be able to convince the admission committee that you are worth one of their slots? You need to really convince yourself first. If you can't then work on it or look for another career choice. Develop your own definition of an excellent doctor and then make sure that you do things to show others that you meet the criteria that you have set.
7. Seek out leadership roles in important community service projects. Do not just join and serve as a follower. You need to become the leader and push an important agenda. Spend time helping those less fortunate than yourself. But make it as meaningful as possible. Do something big and if it gets your name in the press, then great. The more significant the contribution the better.
8. Get to know your faculty advisor and at least two other faculty members very, very, very well. Work on research in their labs, volunteer to be an undergraduate lab assistant in their course, volunteer to tutor weaker students in hard courses. These faculty will be writing very important letters of recommendation for your application. It is in your best interest to make sure that these faculty members know you very well and can write lots of good things about you.
9. Go visit both of the medical schools in South Carolina (or any of the other schools you are interested in) and find out as much as possible about them