

Premedical/Predental/Pre-PA Post Baccalaureate Studies at NMU

Students enrolled in the premedical, predental or pre-PA programs as post-baccalaureates will be assigned to the health care advisor to determine a schedule for the completion of medical, dental, or PA school requirements. Required curriculum is nearly the same for both medical and dental school applicants but varies for PA schools. Some premedical or predental students may come in with no science background and will basically follow the curriculum outlined below. Others may transfer in some of the required courses and will select courses to help complete the credit requirement (32) and enhance their application for medical or dental school. Pre-PA students would be guided in a similar fashion based on their incoming courses and the PA schools they are interested in applying to. Since post-baccalaureate students must declare a major, it is recommended they select physiology or biochemistry as both contain all the required courses for entry into medical or dental school. In addition, post baccalaureate students would participate in the required activities of observation, volunteer work, and research as regular undergraduate students would, and in any other activity available to undergraduates through the premedical/predental/pre-PA programs. They would then take their relevant entrance exam (MCAT, DAT, or GRE) and go through the standard application process for their respective type of professional school. Students are carefully guided through the application procedure.

(Nearly all medical schools require these courses for entry. Please see the pre-physician assistant web page for specifics on PA school requirements)*

BI 111	Introductory Biology: Principles	4 credits
BI 218	Intro to Cell and Molecular Biology	4
CH 111	General Chemistry I	5
CH 112	General Chemistry II	5
CH 321	Organic Chemistry I	4
CH 322	Organic Chemistry II	4
PH 201**	College Physics I	5
PH 202**	College Physics II	5
or		
PH220**	Introductory Physics I	5
PH221**	Introductory Physics II	5
Total		36

Possible, recommended electives:

BI 201	Human Anatomy	3
BI 202	Human Physiology	5
BI 312	Genetics	4
BI 313	Cell Biology	
BI 426	Human Histology	4
CH 450	Introductory Biochemistry	4
BI 303	General Microbiology	5
BI 418	Molecular Biology	4
PY 100	Psychology	4
PL 185	Issues in Medical Ethics	2

* Students may transfer in equivalent credits for required courses if they have earned a grade of B (3.0) or better in each course.

** PH 201 and PH 202 are algebra based courses. If the student has competency in calculus, they may take PH 220 and PH 221 (highly recommended) instead if they wish, but are not required to do so.

Mathematics requirements and additional recommendations:

The minimum mathematics requirement for medical (M.D. and D.O.) or dental school is college algebra (MA 104 at NMU). PA schools may require a course in statistics. If a student has not demonstrated competency in mathematics at that level, they will have to do so in order to complete the chemistry and physics requirements. A student may, as an option, pursue the calculus sequence (MA 161 and MA 163) or statistics (MA 171) if they wish as 28 out of 125 M.D. granting medical schools in the United States require one or the other as do 3 out of 54 dental schools. No D.O. or school requires calculus or statistics.

Medical and dental schools advise students to take as many upper level biology courses as possible. Students should check specific medical and dental schools for any particular additional requirements. Language and business courses are also useful.

**NMU Premedical/Pre dental Post Bac
Program Outline Assuming no credits transferred in (Subject to modification)
Pre-PA's should refer to the PA web page and consult with the advisor.**

Year 1, Fall	Year 1, Winter	Year 1, Summer
Intro Bio (BI 111)* 4 cr.	Anatomy (BI201) 3 cr.	Physiology (BI202) 5 cr.
Intro Chem (CH111) 5 cr.	Intro Chem (CH112) 5 cr.	
Mathematics** 5 cr.	Mathematics** 5 cr.	
	(Physics (PH220)) [@] (5 cr.)	
MGH Conferences Physician/Dental Observation ⁺ Volunteer work ⁺⁺	MGH Conferences Physician/Dental Observation Volunteer work	Physician/Dental Observation Volunteer work
 Year 2, Fall	 Year 2, Winter	 Year 2, Summer
Organic Chem (CH 321) 4 cr.	Organic Chem (CH 322) 4 cr.	
Physics (PH201) 5 cr.	Physics (PH202) 5 cr.	
(Physics (PH221)) [@] (5 cr.)	Genetics (BI312) [#] 4 cr.	
Intro Cell/Mol (BI218) 4 cr.	(Physics (PH220)) [@] (5 cr.)	
Research ^{##}	Research	Board Interview if qualified.
MGH Conferences	MGH Conferences	Overseas Experience or volunteer work plus physician/dental observation.
Physician/Dental Observation	Physician/Dental Observation	Application to medical/dental school.
Volunteer work	Volunteer work	
	MCAT/DAT prep	
	Take MCAT/DAT (May/June)	

Glide year, Fall

Biochem (CH450)[#] 4 cr.
 (Physics (PH221))[@] (5 cr.)
 Elective (Psych/Bio)
 Research
 Physician/Dental Observation
 Volunteer work

Glide year, winter

Histology (BI 426)[#] 4 cr.
 Elective (Psych/PL/Bio)
 Cell Biology (BI 313)[#]
 Research
 Physician/Dental Observation
 Volunteer work

* All science courses have a lab component. Electives in the Glide year will be tailored to the student's needs based on the medical or dental schools they are applying to.

** Mathematics through MA104 (College Algebra) is required. Students will either meet that requirement coming into the program or have to take MA100 before taking MA104. Students who are beyond MA104 may opt to take courses through the calculus sequence if they wish. The winter semester mathematics will not be needed if a student completes MA104 or MA105 and chooses not to go through calculus. If a student needs MA100 in the fall, they should take MA104 in the winter.

+ Physician Observation will be coordinated through the premedical advisor.

++ Volunteer work will be obtained with guidance from the premedical advisor.

Optional but highly recommended for either MCAT prep or first year of medical/dental school. Biochemistry is required by many medical and dental schools

Research (not guaranteed) in biology (genetics or other), chemistry, or psychology will be coordinated with appropriate faculty.

[@] Possible semesters to take calculus based physics. There is also flexibility for the algebra based course.

Note that it may be possible for an incoming student to be ready for the MCAT after their first year, depending on what courses they've taken in their previous baccalaureate program. For example, if they've completed chemistry upon entry, their schedule may be revised to take organic chemistry, and physics their first fall and take the MCAT the following spring. There is a lot flexibility that is possible and the schedule needs to be tailored to the student's needs. The schedule shown above is for a student coming in with basically no science background, observation experience, volunteer work, or research experience.