Center for Student Engagement

Who are Preprofessional students?

Students who have declared a coding of pre-medical, pre-dental, or pre-optometry:
The coding is not a major or a degree granting program but a means of communicating their professional interest in human health care, including careers in medicine, dentistry, optometry, pharmacy, physical therapy, physician assistant, etc.

Students who understand they can complete a bachelor's degree in any major and go on to professional school:
There is no "right major" or a major that will get you into professional school. Every preprofessional student must pick a major. Students should actively research this by going to the web site for different majors (http://www.msu.edu/common/academic/areas.html), by participating in Marathon of Majors in the Fall and Spring semesters, and by meeting with advisors in their areas of interest.

Students who complete Preprofessional coursework:
A student must complete certain prerequisites to make application to professional schools. These prerequisites vary according to the professional school that a student may wish to attend. (http://naturalscience.msu.edu/students/undergraduate/pre_professional/index.html)

Students who select math courses based on their professional goals:
Math coursework is most often selected according to the student's choice of major. Most professional schools like to have students complete MTH 114 Trigonometry or higher. Students majoring in the College of Natural Science must have one semester of calculus and a second semester of calculus or statistics.

Students who meet regularly with a preprofessional advisor:
Meeting with a preprofessional advisor regularly to discuss their career interests, helps students to ensure that they complete all requirements to become a competitive applicant to professional schools. (http://naturalscience.msu.edu/students/undergraduate/advising/contact-information.html#preprof)

The following is a roster of the preprofessional core courses required as preparation for succeeding on admission tests and making application to professional health schools. Please note, **requirements vary from program to program**. The courses listed here are only the core classes required for most professional schools and there are examples of additional courses for certain disciplines on the next page. **It is imperative that preparation includes frequent contact with your preprofessional advisor and a review of the course work for the programs and schools in which the student is interested in.**

General Chemistry	**Cr**	**Physics**	**Cr**
CEM 141 General Chemistry	4	PHY 231 Introductory Physics I	3
CEM 161 Chemistry Lab I	1	PHY 251 Introductory Physics Lab I	1
CEM 142 General & Inorganic Chemistry	3	PHY 232 Introductory Physics II	3
CEM 162 Chemistry Lab II	1	PHY 252 Introductory Physics Lab II	1
Organic Chemistry		**Biology**	
CEM 251 Organic Chemistry I	3	BS 110 Organisms and Populations	4
CEM 252 Organic Chemistry II	3	BS 111 Cells and Molecules	3
CEM 255 Organic Chemistry Lab	2	BS 111L Cells and Molecules Biol. Lab	2

******Please note that alternative courses within Chemistry, Physics and Biology may apply. Consult with your preprofessional advisor for all applicable courses. ******

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In addition to the core courses each preprofessional student must complete, each professional field has their own set of requirements. The following are general lists of **possible additional classes** needed in four core professional fields, based on requirements of Michigan schools. **Again, please note that each school within the disciplines also may have their own specific requirements, so students will need to consult frequently with their preprofessional advisor and the schools they are interested in.**

Pre-Medical

Recommended or Required Science
Biochemistry
BMB 401or BMB 461 and BMB 462

Physiology
PSL 310 or PSL 431 and PSL 432

Genetics
ZOL 341

Recommended Science Electives
ANTR 350 Human Gross Anatomy
MMG 301 Intro. Microbiology
MMG 302 Intro. Microbiology Lab
ZOL 320 Developmental Biology
ZOL 328 Comp. Anat. Of Vertebrates
ZOL 408 Histology
ZOL 402 Neurobiology
ZOL 450 Cancer Biology

Pre-Dental

Recommended or Required Science
Biochemistry
BMB 401or BMB 461 and BMB 462

Microbiology
MMG 301

Non-science Requirements
PSY 101
SOC 100 or ISS 215

Recommended Science Electives
ANTR 350 Human Gross Anatomy
ZOL 328 Comp. Anat. Of Vertebrates
ZOL 408 Histology

Pre-Physician's Assist.

Recommended or Required Science/Math
Anatomy and Lab
ANTR 350 and ANTR 485 or KIN 216 and KIN217

Biochemistry
BMB 401 or BMB 461 and BMB 462

Microbiology
MMG 301 and MMG 302

Physiology
PSL 431 and PSL 432

Statistics
STT 201or STT 231

Non-Science Courses
FCE 225 Ecology of Lifespan Human Development in the Family

***Note: Most MI schools have many additional course requirements not listed above. Consult with your preprofessional health careers advisor.**

Pre-Pharmacy

Recommended or Required Science/Math
Anatomy
ANTR 350 and ANTR 485

Calculus
MTH 132

Microbiology
MMG 301 and MMG 302

Physiology
PSL 310 or PSL 431 and PSL 432

Non Science Courses
COM 100 Human Communication
EC 201 Introduction to Microeconomics
Or EC 202 Introduction to Macroeconomics
ISS 225 Power, Authority, and Exchange
PSY 101 Introductory Psychology
SOC 100 Introduction to Sociology

***Note: Most MI schools have many additional course requirements not listed above. Consult with your preprofessional health careers advisor.**

HOW TO BE A COMPETITIVE APPLICANT TO PROFESSIONAL HEALTH SCHOOLS

✯***Complete all required pre-admission courses prior to applying***

Meet with your preprofessional advisor regularly to help you plan your enrollment in the appropriate pre-admission courses and to discuss other pre-professional issues. Professional health schools vary on what specific courses they require for admission. Contact the professional health schools you plan to apply to in order to ensure you are meeting all the required pre-admission courses.

✯***Achieve a high cumulative grade point average and science/math grade point average***

The average cumulative and science/math gpa for admission to most professional health schools is 3.5 or above.

✯***Develop good relationships with your instructors and find ways to let them get to know you***

Your instructors (both science and non-science) will be an important source for letters of evaluation that are required for admission to professional health schools. Beginning with your first class as a Freshman, make it a point to introduce yourself, do your very best in every class, meet with instructors after class and during office hours to ask questions, and help them get to know your enthusiasm for learning, your career goals, and your personal qualities.

✯***Obtain health care experience related to the field of your interest***

It is important to professional health schools that you have long-term, in-depth work or volunteer experience related to the profession. These experiences help you understand the nature of the work, allow you to explore your commitment to the profession, and be of service to others. It is recommended that you begin your health care experience during your Freshman year and continue it through every semester.

✯***Obtain community service experiences***

Health care professionals serve people from a variety of economic, educational, and cultural backgrounds. Becoming more competent in your skills of working with diversity, while offering your time and assistance to others, is an important aspect of your future profession. Community service experiences can be gained from informal activities or from involvement in formal organizations such as American Red Cross, Habitat for Humanity, community rec centers, homeless shelters, food banks, domestic assault centers, public schools, Special Olympics, Big Brothers/Big Sisters, summer camps for disabled or chronically ill children, etc.

✯***Obtain leadership and group experiences***

Become involved in activities you are interested in and assume leadership roles. In the leadership role, it is important that you demonstrate that you are responsible, trustworthy, and enthusiastic. Show your ability to work cooperatively with the members of groups you are involved with. Leadership and group activities can be chosen from science or pre professional areas, as well as non science areas.

✯***Obtain research experiences***

Involvement in research helps you to develop the inquisitive, in-depth probing, and disciplined intellectual skills that are important to being a health care professional. Undergraduate research opportunities can be found in a variety of ways at MSU. Discuss these with your pre-professional advisor, major advisor, or faculty instructors of the courses you enjoy the most.

✯***Achieve high scores on the required standardized admission test (MCAT, DAT, OAT, PCAT, GRE)***

Preparing for your admissions test starts with the first science, math, and writing classes you take at MSU. Get excited about learning, exploring, and discussing the information you learn in all your classes!

Begin a formal review for the admissions test six months to a year prior to taking it. Use self-study books, CD's, DVDs, take practice exams, join an informal study group, participate in a formal study program or use other study resources – choose whatever methods to study you think will help you the most.