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Dear Pre-Health Student,

The University of Miami (UM) provides an ideal environment to nurture your pre-professional development. As an undergraduate, you will make important decisions about your major, campus involvement, community activities, research, and application to professional school. The staff in the Pre-Health Office will work with you every step of the way for a smooth transition into a health professional school.

We have prepared the “Pre-Health Student Guide” to provide you with direction and information. Please read this material closely and familiarize yourself with the policies and procedures of our office. This preparation will allow our meetings to focus more on you and your specific needs and on getting to know you better. The ultimate goal is to create a comprehensive and competitive portfolio for health professional school.

The “Pre-Health Student Guide” is designed to provide a clear and detailed understanding of the involved health career planning process. Use this guide as a planning tool. Your responsibility is to follow, in a diligent manner, the directives set forth in this manual. We cannot emphasize strongly enough the importance of developing a conscientious, intelligent, and responsible attitude toward your career objective. Of course, you can count on the support of our office as you meet the challenges ahead.

Good Luck!

Sincerely,

Prof. Michael Gaines
The Office of Pre-Health Advising and Mentoring
### TIMETABLE & CHECKLIST

**Academic Preparation & Professional Development**

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Sophomore Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-Health Orientation</td>
<td>• Pre-Health Information 201 Session</td>
</tr>
<tr>
<td>• Pre-Health 101 Information Session</td>
<td>• Meet with Pre-Health Advisor, as needed</td>
</tr>
<tr>
<td>• <strong>Make the grade</strong>: establish good study habits &amp; skills</td>
<td>• <strong>Map your path</strong>: explore health career options, review school and program admissions requirements, plan ahead.</td>
</tr>
<tr>
<td>• <strong>Get to know your pre-health advisor(s)</strong>: stop by the office or call to make an appointment</td>
<td>• <strong>Shadow health professionals</strong></td>
</tr>
<tr>
<td>• <strong>Get involved</strong>: volunteer &amp; shadow, join university organizations.</td>
<td>• <strong>Hone your leadership skills</strong> and contribute to your community</td>
</tr>
<tr>
<td>• <strong>Get to know the faculty</strong>: form relationships with faculty and make use of office hours (you will need letters of evaluation before applying)</td>
<td>• <strong>Get involved in research</strong> if it interests you</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pre-Health 301 Information Session</td>
<td>Almost There....</td>
</tr>
<tr>
<td>• <strong>Request Letters</strong>: request six letters of evaluation (from your faculty, research mentor, health professionals, etc.)</td>
<td>• <strong>Secondary applications</strong>: continue to complete secondary applications for professional schools</td>
</tr>
<tr>
<td>• <strong>Prepare</strong>: study and take the standardized admissions exam</td>
<td>• <strong>Interviews</strong>: prepare for interviews and make travel arrangements.</td>
</tr>
<tr>
<td>• <strong>Stand-Out</strong>: sign-up for interview workshops and personal statement assistance at Toppel Career Center</td>
<td>• <strong>Stay in touch</strong>: follow up with your Pre-Health Advisor about interview &amp; acceptance status.</td>
</tr>
<tr>
<td>• <strong>Committee or Cover Packet</strong>: discuss the options with your Pre-Health Advisor and complete necessary forms, schedule committee letter interview, as needed.</td>
<td>• <strong>Celebrate</strong>: Congratulations Alumni!</td>
</tr>
<tr>
<td>• <strong>Apply</strong>: create and submit your primary and provide the office with a copy. Complete your secondary applications.</td>
<td></td>
</tr>
</tbody>
</table>
HEALTH PROFESSIONS

The “Pre-Health” student includes those interested in a career in medicine, dentistry, veterinary, chiropractic, optometry, physician assistant or podiatry. The health profession abstracts below were taken from the U.S. Department of Labor occupational outlook handbook at www.bls.gov.

Allopathic (M.D.) and Osteopathic (D.O.) Physicians and Surgeons
Physicians and surgeons diagnose illnesses and prescribe and administer treatment for people suffering from injury or disease. Physicians examine patients, obtain medical histories, and order, perform, and interpret diagnostic tests. They counsel patients on diet, hygiene, and preventive healthcare. There are two types of physicians: The Doctor of Medicine (M.D.) and the Doctor of Osteopathic Medicine (D.O.). M.D.s are also known as allopathic physicians. While both M.D.s and D.O.s may use all accepted methods of treatment, including drugs and surgery, D.O.s place special emphasis on the body's musculoskeletal system, preventive medicine, and holistic patient care. Less than a quarter of M.D.s and over half of D.O.s are primary care physicians. They practice general and family medicine, general internal medicine, or general pediatrics and usually are the first health professionals patients consult. Common specialties for D.O.s include emergency medicine, anesthesiology, obstetrics and gynecology, psychiatry, and surgery.

Surgeons are physicians who specialize in the treatment of injury, disease, and deformity through operations. With patients under general or local anesthesia, a surgeon operates using a variety of instruments to correct physical deformities, repair bone and tissue after injuries, or perform surgeries on patients with debilitating diseases or disorders. Though a large number perform general surgery, many surgeons choose to specialize in a specific area. Surgeons like primary care and other specialist physicians, also examine patients, perform, and interpret diagnostic tests, and counsel patients on preventive healthcare.

Naturopathic Medicine (N.D.)
Naturopathic doctors are educated and trained in accredited naturopathic medical colleges. They diagnose, prevent, and treat acute and chronic illness to restore and establish optimal health by supporting the person’s inherent self-healing process. Rather than just suppressing symptoms, naturopathic doctors work to identify underlying causes of illness, and develop personalized treatment plans to address them.

Chiropractic Medicine (D.C.)
The Doctor of Chiropractic or Chiropractic Physician diagnoses and treats patients whose health problems are associated with the body’s muscular, nervous, and skeletal systems, especially the spine. The chiropractic approach to healthcare is holistic, stressing the patient’s overall health and wellness. When appropriate, chiropractors consult with and refer patients to other health practitioners. Chiropractors also employ a postural and spinal analysis common to chiropractic diagnosis. In cases in which difficulties can be traced to involvement of musculoskeletal structures, chiropractors manually adjust the spinal column. Chiropractors counsel patients about wellness concepts such as nutrition, exercise, lifestyle changes, and stress management, but do not prescribe drugs or perform surgery. Some chiropractors specialize in sports injuries, neurology, orthopedics, pediatrics, nutrition, internal disorders, or diagnostic imaging.

Dentistry (D.D.S. or D.M.D.)
The Doctor of Dental Surgery (D.D.S.) and Doctor of Dental Medicine (D.M.D.) diagnose, prevent, and treat teeth and tissue problems. They remove decay, fill cavities, examine x-rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery on gums and supporting bones to treat gum diseases. Dentists extract teeth and make models and measurements for dentures to replace missing teeth. They provide instruction on diet, brushing, flossing, use of fluorides, and other aspects of dental care, as well. They also administer anesthetics and write prescriptions for antibiotics and other medications.

Most dentists are general practitioners, handling a variety of dental needs. Other dentists practice in one of nine specialty areas including orthodontics, oral and maxillofacial surgery, pediatric dentistry, periodontics, prosthodontics, endodontics, public health, oral pathology, and oral and maxillofacial radiology.
Optometry
The Doctor of Optometry (O.D.), also known as an Optometrist, provides most primary vision care. They examine people’s eyes to diagnose vision problems and eye diseases, and they test patients’ visual acuity, depth and color perception, and ability to focus and coordinate the eyes. Optometrists prescribe eyeglasses and contact lenses and provide vision therapy and low-vision rehabilitation. Optometrists analyze test results and develop a treatment plan. They administer drugs to patients to aid in the diagnosis of vision problems and prescribe drugs to treat some eye diseases. Optometrists often provide preoperative and postoperative care to cataract patients, as well as patients who have had laser vision correction or other eye surgery. They also diagnose conditions due to systemic diseases such as diabetes and high blood pressure, referring patients to other health practitioners as needed. (Optometrists should not be confused with ophthalmologists. Ophthalmologists are physicians who perform eye surgery, and diagnose and treat eye diseases and injuries).

Physician Assistant (PA)
Physician Assistants are medical professionals who diagnose diseases, develop and manage treatment plans, prescribe medications and often serve as a principal healthcare provider. PAs practice in every state and in every medical setting and specialty. They collaborate with physicians and other healthcare professionals in the dissemination of quality healthcare.

Podiatric Medicine (D.P.M.)
The Doctor of Podiatric Medicine treats injuries, deformities and diseases of the ankle, foot, and lower extremities. To treat these problems, podiatrists prescribe drugs, order physical therapy, set fractures, and perform surgery. They also fit orthotics and design plaster casts and strappings and custom-made shoes. Podiatrists may use a force plate to help design the orthotics.

To diagnose a foot problem, podiatrists also order x-rays and laboratory tests. The foot may be the first area to show signs of serious conditions such as arthritis, diabetes, and heart disease. Podiatrists consult with and refer patients to other health practitioners when they detect symptoms of these disorders. Some specialize in surgery, orthopedics, primary care, or public health. Besides these board-certified specialties, podiatrists may practice a subspecialty such as sports medicine, pediatrics, dermatology, radiology, geriatrics, or diabetic foot care.

Veterinary Medicine (D.V.M.)
The Doctor of Veterinary Medicine plays a major role in the healthcare of pets, livestock, and zoo, sporting, and laboratory animals. Some veterinarians use their skills to protect humans against diseases carried by animals and to conduct clinical research on human and animal health problems. Others work in basic research, broadening the scope of fundamental theoretical knowledge, and in applied research, developing new ways to use knowledge.

Most veterinarians perform clinical work in private practices. Veterinarians in clinical practice predominately or exclusively treat small animals and diagnose animal health problems, vaccinate against diseases, medicate animals suffering from infections or illnesses, treat and dress wounds, set fractures, perform surgery, and advise owners about animal feeding, behavior, and breeding. A small number of private practice veterinarians work exclusively with large animals. Much of this work involves preventive care to maintain the health of the food animals. They also perform cesarean sections on birthing animals. Veterinarians also euthanize animals when necessary. Other veterinarians care for zoo, aquarium, or laboratory animals.

Veterinarians can contribute to human as well as animal health. A number of veterinarians work with physicians and scientists as they research ways to prevent and treat human health problems, such as cancer, AIDS, and alcohol or drug abuse. Veterinarians who are livestock inspectors check animals for transmissible diseases, examine slaughtering and processing plants, check live animals and carcasses for disease, and enforce government regulations regarding food purity and sanitation.
PRE-HEALTH INFORMATIOSS SESSIONS

MIAMI
MANDATORY PRE-HEALTH INFORMATION SESSIONS

Sessions are held on select days and times every fall and spring semester. Dates and times of scheduled sessions will be posted on our website and Blackboard site. We will have printouts of the schedule in the Pre-Health Office, Ungar 103.

All students on a pre-health track are required to attend one session of each type. Students are required to sign-in at each session attended. This is the only way we can track student attendance.

101 Sessions: First-Year and Transfer Students

Students new to a pre-health track will get an overview of what it means to be a pre-health student at UM, track requirements, and how to build a competitive application for health professional school.

201 Sessions: Sophomores

Students will get additional information on how to become a competitive applicant for health professional school and will learn about the letter of evaluation process (who to request letters from and where to have letters submitted).

301 Sessions: Juniors and Seniors

Students will learn the ins and outs of the application process, including information on committee letter packets and cover letter packets. Students who do not attend a 301 session and who do not sign in at the 301 session attended will not be eligible for a committee letter packet.

Note that attendance at these sessions is mandatory if you desire to obtain a committee letter from the Pre-Health office.
PRE-HEALTH FILE
OPENING A PRE-HEALTH FILE

All pre-health students at the University of Miami (UM) must open a file in the Office of Pre-Health Advising and Mentoring. Your pre-health file will serve as the repository for your evaluations for health professional school and other important documents. To open a file you must first attend a mandatory Pre-Health 101 Information Session then you will receive an email questionnaire and electronic buckley form. Upon completion of the questionnaire and form you will be coded pre-health, added to the email list-serv, and given access to the office Blackboard site. Information on scheduled information sessions can be found on our website prehealth.miami.edu. The documents required to open a file are listed below.

A. New Student Intake Form: This form includes basic information to open your pre-health file and your interests in pursuing this field.

B. Buckley Form: This is a form on which you choose to waive or choose not to waive your right to access evaluations submitted on your behalf.

BLACKBOARD, LIST-SERV & WEBSITE

Once you have attended a mandatory Pre-Health 101 Information Session and completed the emailed Pre-Health questionnaire and Buckley form, you will be coded as Pre-Health and added on Blackboard. Within 48 hours of opening your file, Log into Blackboard and you will find the “Office of Pre-Health Advising and Mentoring” icon on Blackboard (courses.miami.edu). The site includes useful resources such as announcements, documents, forums, evaluation letters that have been received by the Pre-Health Office, volunteer/shadowing opportunities, specific information on health professions, etc. We encourage students to check Blackboard frequently.

To enhance the services of the Pre-Health Office, we have an email list-serv for all students coded with pre-medical, pre-dental, pre-veterinary, pre-physician assistant and post-baccalaureate identifiers at UM. We will be using this service to disseminate important messages and announcements. You also should regularly check the Pre-Health Office website prehealth.miami.edu where important information, including special events, is posted.

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PRE-HEALTH REQUIREMENTS
MAJOR SELECTION AND ACADEMIC REQUIREMENTS

Major Selection. All Pre-health students must select a major as specified in the undergraduate bulletin. There are two distinct areas of academic preparation for the pre-health student. First, students must fulfill degree requirements and second, they must complete the requirements for admission to health professional school. You do not need to major in a biological or physical science in order to declare a pre-health track. If you have a real interest and ability in an area outside of the sciences, by all means pursue it. You can major and/or minor in the humanities, social sciences, engineering, business, or any other discipline offered at the university. Although many students who apply to health professional school major in the life sciences, applicants from every academic area can be competitive as long as the program is rigorous and reflects academic excellence. If you choose a major outside the natural sciences it is important to take additional science courses beyond the required pre-health courses to prepare you for the professional school entrance exam. Regardless of your major, your academic curriculum should include some science courses (biology, chemistry, physics, and mathematics) each semester. As pre-health students, you are expected to maintain a full-credit load of at least 15 credits.

Course Requirements. Listed on the next page are the courses required by the majority of health professional schools in the U.S. Most of these courses should be completed by the end of the junior year, and should be taken at an accredited four-year college or university. Be aware that health professional schools are highly variable in their requirements. Familiarize yourself with the specific requirements of the schools and programs you plan to apply to and make sure you take the required courses.

Advanced Placement (AP) Credit. AP credit may be used to satisfy the course requirements at the majority of health professional schools. Please check specific schools for information. If you use AP credits in fulfillment of the required courses, it is important that you take advanced courses in these subject areas for graded credit at UM. At UM Miller School of Medicine AP credits are accepted and can be used to satisfy requirements for English, behavioral science, biology, physics, and inorganic chemistry, as long as the credits appear on a college transcript with a grade and are verified by AMCAS. If a student accepts AP credit for physics, he/she still needs to take the two-semester college physics lab sequence at UM (PHY 106 and PHY 108).

International Baccalaureate (IB) Credit. IB credit may be used to satisfy the course requirements at the majority of health professional schools. Please check specific schools for information. If you use IB credits in fulfillment of the required courses, it is important that you take advanced courses in these subject areas for graded credit at UM. At UM Miller School of Medicine IB credits are accepted and can be used to satisfy requirements for English, behavioral science, biology, physics, and inorganic chemistry, as long as the credits appear on a college transcript and are verified by AMCAS. If a student accepts IB credit for physics, he/she still needs to take the two-semester college physics lab sequence at UM (PHY 106 and PHY 108).

Dual Enrolled Credit. Students who received dual enrolled credit for the pre-health course requirements do not then take those courses again at UM. Such students are encouraged to take advanced courses in the subject areas for graded credit at UM, but this is not required.

Please Note. The Pre-Health Office does not evaluate AP, IB, dual enrolled, or transfer credit. Please direct such questions to the Office of Undergraduate Admissions or the department/program that the course falls under.
<table>
<thead>
<tr>
<th>English &amp; Math</th>
<th>Biology</th>
<th>*Chemistry</th>
<th>** Physics</th>
<th>Behavioral Sci</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition I (ENG 103) **And English Composition II (ENG 105 OR English Composition 2 (ENG 106) And English Literature 200 level)</td>
<td>General Biology (BIL 150) &amp; Lab (BIL 151 or 152) **And Evolution and Biodiversity (BIL 160) &amp; Lab (161 or 162)</td>
<td>**Principles of Chemistry (CHM 121) **And **Chemistry I Lab (CHM 113)</td>
<td>College Physics I (PHY 101) &amp; Lab (PHY 106) **OR University Physics I (PHY 201)</td>
<td>***Two semesters of a behavioral science course such as Introduction to Psychology (PSY 110) &amp; Introduction to Sociology (SOC 101)</td>
</tr>
<tr>
<td>Students may also complete other English sequences except Creative writing.</td>
<td>Students may also complete Genetics (BIL 250) and Cell and Molecular Biology (BIL 255) if they have satisfied the general biology sequence.</td>
<td>**Introduction to Structure and Dynamics (CHM 221) **And **Chemical Dynamics Lab (CHM 205)</td>
<td>College Physics II (PHY 102) &amp; Lab (PHY 108) **OR University Physics II (PHY 202)</td>
<td></td>
</tr>
<tr>
<td>Two semesters of Math *Math courses vary depending on medical school</td>
<td>Microbiology and Immunology: MIC Required for Pre-Dent, Pre-PA and Pre-Vet schools</td>
<td>**Organic Reactions and Synthesis (CHM 222) **And **Organic Reactions and Synthesis Lab (CHM 206)</td>
<td>For Engineering Majors University Physics I (PHY 221), University Physics II (PHY 222) &amp; Lab (PHY 224), University Physics III (PHY 223) &amp; Lab 225</td>
<td></td>
</tr>
<tr>
<td>Statistics</td>
<td>**MTH 224 or PSY 299 required for Pre-PA, Pre-Vet and some Pre-Med and Pre-Dent schools</td>
<td>Recommend but required for Pre-Vets Anatomy- HCS 212 Comparative Physiology- BIL 360</td>
<td>Biochemistry (BMB 401)</td>
<td></td>
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</table>

*The University of Miami no longer offers the four semester Chemistry sequence. All Pre-Health students must complete the three semesters of Chemistry with Biochemistry. All labs must also be completed.

** There are three physics sequences offered at UM, the two-semester college physics, and university physics sequences outlined in the table above and the three-semester university physics sequence (PHY 221, PHY 222/208, PHY 223/209). The majority of pre-health students take the two-semester college physics sequence, but students may choose to take the calculus-based university sequence. Engineering majors are required to take three-semester university physics sequence.

*** Behavioral Science is a UM Miller School of Medicine requirement. There is also a Psychology and Sociology section on the MCAT.

**Important:** Students on the Pre-Health track will need to take the required entrance exam (MCAT, DAT, OAT, GRE) and complete the CASPer test to be considered for admission to the majority of health professional school of their choice. For students on the Optometry track only Salus University requires the CASPe with the OAT.
Suggested Courses. In addition to the required courses on the previous page, students are encouraged to take the following:

- Genetics (BIL 250) and (BIL 251L)
- Cell and Molecular Biology (BIL 255)
- Comparative Physiology (BIL 360)
- Human Anatomy (HCS 212) and
- Microbiology and Immunology (MIC 301 or MIC 303/304)
- Developmental Biology (BIL 355)
- Neuroscience courses
- Computer Science courses
- Statistics courses (MTH 224/PSY 290)
- Biostatistics (BME 312)
- Public Speaking (COS 211)

Important Notes on Courses.

- Students who are waived from ENG 105 based on their SAT or ACT score should take additional English literature courses with one at the 200 level to satisfy the pre-health requirements. Creative Writing courses such as ENG 209 do not meet the requirement.
- Math requirements are highly variable among the different health professional schools. Familiarize yourself with the specific requirements of the schools you plan to apply to and make sure you take the required courses. Students completing a B.A. degree at UM must take pre-calculus mathematics courses. Students completing a B.S. degree at UM must take calculus I and II. Many medical schools encourage a semester of statistics in addition to a semester of calculus.
- Microbiology (301 or 303/304) is required for admission to some dental, veterinary and PA schools.
- The University of Florida (UF) School of Veterinary Medicine requires a semester of Animal Nutrition and a semester of Animal Science. These courses must be taken at UF prior to matriculation.
Course Schedule Example

Pre-Medical Students

Below is an example of a course schedule for the traditional pre-med student who enters UM as a freshman. The proposed sequence of courses below is not required for pre-med students. It simply is an example and does not include a student’s major/minor required courses or the university general education/requirements. We encourage students to take both biology and chemistry in their freshmen year, but a student may not feel comfortable doing so. Or a student may accept AP/IB/Dual enrolled credits or apply transfer credit and therefore will not take certain courses at UM. The ideal situation is that students complete courses required for entrance to medical school prior to applying. But most medical schools will accept students as long as they take the required courses matriculation.

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
</tr>
<tr>
<td>English Composition I (ENG 105)</td>
<td>English Composition II (ENG 106) Evolution &amp; Biodiversity (BIL 160) Evolution &amp; Biodiversity Lab (BIL 161/162)</td>
</tr>
<tr>
<td>General Biology (BIL 150)</td>
<td>Introduction to Structure and Dynamics (CHM 221)</td>
</tr>
<tr>
<td>General Biology Lab (BIL 151/152)</td>
<td>Chemical Dynamics Lab (CHM 205)</td>
</tr>
<tr>
<td>Principles of Chemistry I Lab (CHM 121)</td>
<td>Math course</td>
</tr>
<tr>
<td>Math course</td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Organic Reactions and Synthesis (CHM 222)</td>
<td>Biochemistry for the Biomedical Sciences (BMB 401)</td>
</tr>
<tr>
<td>Organic Reactions and Synthesis Lab (CHM 206)</td>
<td>Comparative Physiology (BIL 360)</td>
</tr>
<tr>
<td>Anatomy (HCS 212)</td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>College Physics I (PHY 101) or</td>
<td>College Physics II (PHY 102) or</td>
</tr>
<tr>
<td>University Physics I (PHY 201) and</td>
<td>University Physics II (PHY 202) and</td>
</tr>
<tr>
<td>Physics I Lab (PHY 106)</td>
<td>Physics II Lab (PHY 108)</td>
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</tbody>
</table>
PORTFOLIO DEVELOPMENT
DEVELOPING A COMPETITIVE PORTFOLIO FOR HEALTH PROFESSIONAL SCHOOL

Academic Performance
The pre-health student must demonstrate academic ability in the form of a strong science and cumulative GPA and a high standardized exam score.

Metrics are important!

<table>
<thead>
<tr>
<th>Grade Point Average</th>
<th>Standardized Test Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 3.7 science</td>
<td>MCAT ≥ 512</td>
</tr>
<tr>
<td>≥ 3.7 cumulative</td>
<td>OAT ≥ 320</td>
</tr>
<tr>
<td>You must receive a C or better in all course requirements</td>
<td>DAT ≥ 20</td>
</tr>
<tr>
<td></td>
<td>GRE ≥ 310</td>
</tr>
<tr>
<td></td>
<td>(verbal + quantitative)</td>
</tr>
</tbody>
</table>

Clinical & Shadowing Experience
Although strong academic preparation is a primary prerequisite in the pre-health student’s record, the health professional schools are interested in what you have done to demonstrate your desire to enter this field. You are encouraged to acquire a significant amount of clinical exposure and/or experience in your chosen profession. Over a period of 3 or 4 years, you want to demonstrate your commitment to exploring the health profession. Try to arrange for diverse clinical experiences. Some options are volunteering at hospitals, clinics, private offices, nursing homes, assisted living facilities and hospices. The more hands-on activity with the better. PA students are required to obtain paid clinical experiences.

You may want to get certified as an emergency medical technician (EMT), phlebotomist or become a licensed certified nursing assistant (CNA). Or you may want to participate in a medical mission trip. Pre-vet students could volunteer in an animal shelter. The intent is to increase your awareness of the realities you will face in your chosen health profession.

The interaction with practitioners and the observation of all aspects of health care is instructive and essential. Contact with patients is essential. Summer, winter, and spring breaks at home or abroad provide additional opportunities to gain relevant experience. **Ideally, you should shadow a minimum of three professionals for 40 hours each.** While you are shadowing, you should have meaningful patient contact and not merely a passive observer. Shadowing should be supplemented with other clinical experiences such as volunteering at a hospital, hospice or assisted living facility and completing service trips. The Pre-Health Office provides limited shadowing opportunities for students. The best way to get involved with shadowing is to contact local physicians directly or the human resources/volunteer office at local hospitals. Also, the UM pre-health clubs each have a shadowing coordinator who can provide members with shadowing experiences. The sources of clinical exposure and experience are unlimited. These include:

- UHealth—University of Miami Health System
- Jackson Memorial Hospital
- The VA Hospital
- Miami Children’s Hospital
- Doctors Hospital – Baptist Health South Florida
- Mercy Hospital
- South Miami Hospital

Note: Students can walk to Doctors Hospital, which is adjacent to campus, and ride the metro-rail to UHealth and Jackson Memorial Hospital.
Summer Enrichment Programs
A number of medical schools and some dental schools offer summer enrichment programs where potential applicants can strengthen their preparation. They typically offer academic course work in areas related to the professional school curriculum. Some offer test preparation and clinical and/or research opportunities and may have links for direct admission into their respective programs. Students from underrepresented groups should ask the Pre-Health advisor about the Summer Health Professions Education Program (SHPEP) or visit the website www.shpep.org.

Research Experience
Research involvement will provide you with first-hand experience in the role and methodology of research in medicine, even if your goal is clinical practice. If you are seriously considering a Ph.D. in addition to the M.D. or DVM degree, it is imperative that you gain significant research experience as an undergraduate. UM students are fortunate to have numerous opportunities for research on the Coral Gables campus, at RSMAS, and on the medical campus. Contact individual professors regarding their research, and ask if you can join their lab either as a volunteer or for academic credit. The Office of Undergraduate Research assists in matching students with an appropriate mentor and project. Visit them at www.ugr.miami.edu or at their office in Ungar 101. Also, Uconnect is a student organization promoting undergraduate research.

Extra-Curricular Involvement
The level of your participation in activities both on- and off-campus is more important to professional schools than the number of organizations you join. Commitment, leadership, responsibility, and the ability to interact effectively with others are the qualities professional schools look for. Activities of interest to pre-health students include service groups, cultural and academic clubs and organizations, employment, and athletics. Your involvement need not be exclusively health-related to be meaningful. What is important is that you demonstrate sustained activity rather than curriculum vitae padding. Be aware, however, that no matter how meaningful, extensive involvement in extra-curricular activities will not compensate for mediocre academic performance. It may instead indicate to an admissions committee that you have poor judgment, skewed priorities, and/or inadequate time management skills.

The UM Butler Volunteer Services Center has a directory that lists over 200 community service opportunities. Below is a list of some of the undergraduate organizations you may get involved with. For more information, contact Student Activities and Student Organizations located in Room 206 of the Student Activities Center, call 305-284-6399, or email student-activities@miami.edu. For information on the various pre-health clubs, please visit Orgsync.

- Alpha Epsilon Delta (AED), Pre-Health Honor Society
- American Medical Students Association (AMSA)
- American Society of Pre-Dental Students
- Beta Beta Beta, Biology Honor Society
- Biomedical Engineering Society
- Microbiology and Immunology Club
- Minority Association of Pre-Health Students (MAPS)
- Minority Women in Medicine (MWM)
- OPTOM-EYES, Pre-optometry club
- Phi Delta Epsilon (PhiDE), International Medical Fraternity
- Pre-Veterinary Society
- Student Health Advisory Committee (SHAC)
- Nu Rho Psi, National Neuroscience Honor Society
- UCONNECT, undergraduate research organization
- CERT, Canes Emergency Response Team
Development of Interpersonal and Interview Skills
Having strong interpersonal skills are critical to being a successful health professional. Some of the traits that admissions committees are looking for in applicants include maturity, confidence, compassion, empathy, patience, emotional balance, creativity, reliability, and good manners. **A good way to develop strong interpersonal skills is by stepping out of your comfort zone.** Challenge yourself! Get involved on- and off-campus!

Preparing for interviews can be stressful and intimidating. Schedule a mock interview with the Toppel Career Center. Keep in mind the following points.

- Research the school/program’s interview format
- Research the school/program’s curriculum
- Familiarize yourself with the school’s mission statement
- Know where to go for the interview and when – Be on time!
- Prepare answers to anticipated questions including those related to current medical/ethical topics
- Dress professionally
- Make eye contact
- Communicate clearly
- Ask questions
- Be respectful
- Be yourself
- Smile!
INDIVIDUAL LETTERS
OF EVALUATION
REQUESTING INDIVIDUAL LETTERS OF EVALUATION

Once you have opened a pre-health file you may begin to solicit individual letters of evaluation from faculty and outside evaluators. Make sure the evaluator knows you well to ensure a great evaluation.

Students can have a maximum of six individual evaluation letters included in the cover letter packet. Six individual letters are required for a committee letter packet.

You should give at least 4-6 weeks’ notice when asking an evaluator to write a letter on your behalf. It is very helpful for evaluators to have as much information, in writing, as possible to refer to when they are writing your letter (e.g. unofficial transcripts, curriculum vitae, personal statement). Providing these details also will ensure that your letters have accurate information regarding your activities.

Letter requirements
We, along with the health professional schools, require that all letters of evaluation be on official letterhead, signed, dated and include your complete name. All letters of evaluation written by faculty and other evaluators are confidential.

Who do I ask for letters?
Each pre-health student should request six individual letters of evaluation: three letters from science faculty, one letter from a non-science faculty member, one from a health professional, and one “wild card” letter. The wild card letter could be from a research mentor, employer, or someone associated with your volunteer work or extracurricular activities.

What counts as a letter from a science faculty member?
Faculty members who teach the following courses count as science faculty for a committee letter: BIL, CHM, PHY, MTH, BM. Note that some science courses that count for committee letters may not always count as BCMP designated science courses in AMCAS.

What counts as a letter from a non-science faculty member?
Faculty members who teach courses in the following disciplines count as non-science faculty: ENG, PSY (with exceptions noted above), REL, THA, JUS, SOC, FRE, SPA, ARB, MUS, business and communication courses, etc.

Requesting Letters from UM Faculty (with whom you’ve taken a course and received credit)
Once you receive the faculty member’s consent, you must complete a “Request for a Pink Sheet.” You can submit a pink sheet request form our Blackboard site or our website. The information you list on that form will then be sent to your designated faculty member by the Pre-Health Office. Faculty letters can be submitted to the Pre-Health Office by email, fax, or mail. Emailed submission of letters is preferred (prehealth@miami.edu). Pink Sheets are sent only if you have opened a pre-health file and signed the Buckley Form. Pink sheets are sent only to UM faculty with whom you have taken a course for credit.
Requesting Letters from Professional/Administrative ("Outside") Evaluators

Pink Sheets are used ONLY for instructors with whom you have taken a course from at UM and received a grade. For all other evaluators (e.g. physician, dentist, employer, etc.) ask the evaluator to write a favorable letter on your behalf. These letters can be submitted to the Pre-Health Office by email, fax, or mail. **Emailed submission of letters is preferred (prehealth@miami.edu).** If a school you are applying to requests that you include a peer letter/character reference letter in your secondary application packet, please have that designated evaluator send the evaluation letter directly to that institution; it will not be accepted by the Pre-Health Office.

SUBMITTING LETTERS TO THE PRE-HEALTH OFFICE

We do not accept letters hand delivered by a student. We prefer letters to be emailed to prehealth@miami.edu. But letters may be faxed (305-284-8278) or mailed to our office (Office of Pre-Health Advising and Mentoring, University of Miami, 1365 Memorial Drive, Ungar Rm 103, Coral Gables, FL 33146). **Letters should have the appropriate letterhead and must contain the signature of the letter writer in order to be accepted.**

TRACKING LETTERS RECEIVED BY THE PRE-HEALTH OFFICE

To see if your letter(s) of evaluation have been received by the Pre-Health Office, you can check under the "My Evaluation Letters" tab on the Pre-Health Office icon on Blackboard. If a letter does not appear, contact that letter writer directly to verify the status of your letter or the Pre-Health Office.
LETTER PACKETS

MIA
 MIAMI
LETTER PACKET OPTIONS

Only for Students Applying to Medical or Dental Schools

Most, but not all, students apply to medical or dental schools the summer between their junior and senior years with the goal of beginning medical or dental school the fall semester after graduating from UM with a baccalaureate degree.

Committee Letter Packet
The committee letter, also known as the “composite letter”, is written by the Office Director, Prof. Gaines. The committee letter consists of a rating (Most Highly Recommend, Highly Recommend, Recommend, Recommend with Reservations and a two page letter about the applicant’s life journey, academic performance, clinical experience, research, leadership and community service. The applicant is required to have six individual letters in her/his pre-health file to be included in the committee letter packet (three from science faculty, one from a non-science faculty member, one from a health professional, and a “wild card” letter). Three of the six letters must be received by the Pre-Health Office at least 48 business hours before the committee letter interview. Two of these letters must be from UM science faculty with pink sheets. The applicant must attend and sign-in at a 301 information session before interviewing for a committee letter.

Follow these steps for a committee letter: Attend and sign-in at a 301 information session. Do not leave the session without signing in. Contact the Pre-Health Office at the beginning of the spring semester of the year you are applying to medical/dental school to schedule a committee letter interview with Prof. Gaines. Interviews (45 min) will be held February-May. Exact dates change each year, so adhere to the schedule that is released by the Pre-Health Office in January. Arrive on time and dress business professional for your scheduled interview.

Documents are due 72 business hours (3 business days) prior to the committee letter interview. You will need to have the following paperwork submitted to the Pre-Health Office. Your interview will be cancelled if the required paperwork is not received by the Pre-Health Office 72 business hours before the interview.

- Committee Letter Request Form (available on our Blackboard site and on our website
- Three individual Letters of Evaluation – Two (2) of these letters must be from UM science faculty and have pink sheets and One (1) a health care practitioner (shadowing physician or someone who can comment on your interaction with patients.
- Personal Statement with a maximum of 5,300 characters, including spaces. (Note: The personal statement you submit to the Pre-Health Office is for our personal use when writing the committee letter. It does not have to be the version you submit to professional school.)
- Sweeping Autobiographical Essay (two pages, double spaced)
- Resume or Curriculum Vitae (include beginning and end dates, descriptions of activities, and total hours)
- Unofficial Transcript or Degree Progress Report

It is very important that the information you provide in your curriculum vitae, professional development activities form, personal statement, and autobiographical essay is consistent across all documents. The next page discusses the steps you need to take following the interview and submission of your primary application
in order to ensure that that Pre-Health Office submits your committee letter packet to the designated application portal.

After the committee letter interview you need to provide the Pre-Health Office with a copy of your submitted primary application (AMCAS, ACOMAS, TMDSAS, AADSAS, etc.). If you are applying to AMCAS, we also need the AMCAS letter request form - select the committee letter option from the drop down menu and insert the following author/contact information:

Prof. Michael Gaines  
University of Miami  
Office of Pre-Health Advising and Mentoring  
1365 Memorial Drive, Ungar Rm 103  
Coral Gables, Fl 33146  
prehealth@miami.edu  
305-284-5176

You may save the AMCAS letter request form as a pdf file and email it to prehealth@miami.edu or print it and drop it off at the Office. Once we receive your submitted application(s) and AMCAS letter request form, if applicable, we will check your pre-health file for all required documents, including the six individual letters you requested to be included in the committee letter packet. If we have all the required documentation you will receive an email notification from the Pre-Health Office that you have been placed in queue for submission of your committee letter packet. The length of the queue varies. We cannot tell you your place in the queue. Please be patient and keep in mind that the earlier you submit your paperwork (including MCAT/DAT score), the higher your position in the queue. We work as quickly as we are able to submit your packet. You will receive email notification once your packet has been submitted. Additional instructions for applying to AMCAS, ACOMAS, TMDSAS, and AADSAS are provided on our website.

A note on saving your ACOMAS application as a pdf file: The ACOMAS portal will generate one application for each osteopathic medical school you apply to. The Pre-Health Office needs a copy of only one of your submitted applications. For example, if you apply to 10 osteopathic medical schools, send us your application for just one of those schools. To do so, go to Manage my Programs - Program status - Blue download button.

A note on saving your AADSAS application as a pdf file: Click the “Print Application” button on the “My tools” menu. This will open the application in a web page. Then save the web page as a pdf by selecting print and then selecting Adobe as the printer.

Cover Letter Packet
The cover letter packet, also called a “letter packet”, contains general information about the applicant (e.g. name and C number) and a minimum of three and maximum of six individual letters of evaluation. No interview is necessary for the cover letter packet.

Follow these steps for a cover letter packet: Complete the cover letter request form(available on our Blackboard site, on our website, and in the Pre-Health Office) and return it to the Pre-Health Office. Once you submit your primary application to the application portal (AMCAS, ACOMAS, TMDSAS, AADSAS, etc.), you must provide a copy of your complete submitted primary application to the Pre-Health Office. The portal allows you to save your application as a pdf file. Once you save the application as a pdf file you may email it to prehealth@miami.edu or print it and drop it off at the Office. If you are applying to AMCAS, you also must provide the Pre-Health Office with the AMCAS letter request form – select the letter packet option from the drop down menu and insert the following author/contact information:
Prof. Michael Gaines
University of Miami
Office of Pre-Health Advising and Mentoring
1365 Memorial Drive, Ungar Rm 103
Coral Gables, Fl 33146
prehealth@miami.edu
305-284-5176

You may save the AMCAS letter request form as a pdf file and email it to prehealth@miami.edu or print it and drop it off at the Office. Once we receive your submitted application(s) and AMCAS letter request form, if applicable, we will check your pre-health file for all required documents, including the individual letters you requested to be included in the cover letter packet. If we have all the required documentation you will receive an email notification from the Pre-Health Office that you have been placed in queue for submission of your cover letter packet. The length of the queue varies. We cannot tell you your place in the queue. Please be patient and keep in mind that the earlier you submit your paperwork, the higher your position in the queue. We work as quickly as we are able to submit your letter packet. You will receive email notification once your packet has been submitted. Additional instructions for applying to AMCAS, ACOMAS, TMDSAS, and AADSAS are provided on our website.

A note on saving your ACOMAS application as a pdf file: The ACOMAS portal will generate one application for each osteopathic medical school you apply to. The Pre-Health Office needs a copy of only one of your submitted applications. For example, if you apply to ten osteopathic medical schools, send us your application for just one of those schools. To do so, go to Manage my Programs - Program status - Blue download button.

A note on saving your AADSAS application as a pdf file: Click the “Print Application” button on the “My tools” menu. This will open the application in a web page. Then save the web page as a pdf by selecting print and then selecting Adobe as the printer.

Individual Letters
The applicant can elect to have an evaluator submit his/her letter directly to the application portal or the professional school he/she is applying to. If the applicant chooses this option, then he/she does not use the Pre-Health Office. The letter must be sent directly from the evaluator to the application portal or school.

What if I am a reapplicant?
If you have a cover letter packet on file that you want the Pre-Health Office to re-submit, you must complete the re-applicant request form (available on our Blackboard site, on our website, and in the Pre-Health Office). If you have a committee letter packet on file, you should schedule a 15 minute update interview with Prof. Gaines during the committee letter interview period, February-May (professional business attire is not required for an update interview). The update interview may be in person in the Pre-Health Office or via Skype for individuals no longer in the Miami area. Committee letter re-applicants must call the Pre-Health Office to schedule the update interview (adhere to the interview dates), and then make sure to complete and submit to the Pre-Health Office the re-applicant request form, an updated CV/resume, and an updated professional development activities form at least 72 business hours before the scheduled update interview. If you are requesting a cover letter packet for the first time, follow the cover letter packet procedures. If you are requesting a committee letter packet for the first time, follow the committee letter procedures.
PERSONAL STATEMENT
PERSONAL STATEMENT

Most professional school applications ask for some form of personal statement. The AMCAS personal comments essay allows 5,300 characters (including spaces), and statements for other professional programs are usually a little shorter.

The personal statement is an important first impression. Your statement may determine whether or not you will be offered an interview. When you interview, you may be asked questions drawn from the personal statement. A well-written statement also can help writers of letters of evaluation.

You want your personal statement to be short but insightful and emphasize your strengths. It should enhance the information provided in the rest of the application, not repeat it. Below are some fundamental questions to guide you in writing your personal statement.

1. How, when and why did you become interested in your intended health profession?
2. What unique academic and extracurricular experiences make you a competitive applicant?
3. How have you demonstrated your commitment to pursuing your intended health profession?
4. What distinguishes you from other applicants?

The Toppel Career Center will help you with career verbiage while the Writing Center can help you with wordsmithing. Please visit the links below:

www.sa.miami.edu/toppel
as.miami.edu/writingcenter/
FLORIDA SCHOOLS AND PROGRAMS
HEALTH PROFESSIONAL SCHOOLS IN FLORIDA

In general, your best chance for acceptance to a health professional school is in your state of residence. The following is a list of some of the health professional schools in Florida.

**Allopathic (M.D.)**
- Florida Atlantic University College of Medicine     [www.med.fau.edu](http://www.med.fau.edu)
- Florida International University College of Medicine [www.medicine.fiu.edu](http://www.medicine.fiu.edu)
- Florida State University College of Medicine       [www.med.fsu.edu](http://www.med.fsu.edu)
- University of Central Florida College of Medicine   [www.medicine.ucf.edu](http://www.medicine.ucf.edu)
- University of Florida College of Medicine           [www.med.ufl.edu](http://www.med.ufl.edu)
- University of Miami Miller School of Medicine       [www.miami.edu/medical-admissions](http://www.miami.edu/medical-admissions)
- Nova Southeastern University College of Allopathic Medicine [md.nova.edu](http://md.nova.edu)
- University of South Florida College of Medicine     [www.hsc.usf.edu/medicine](http://www.hsc.usf.edu/medicine)

**Osteopathic (D.O.)**
- Lake Erie College of Osteopathic Medicine (Bradenton) [www.lecom.edu](http://www.lecom.edu)
- Nova Southeastern University College of Osteopathic Medicine [www.medicine.nova.edu](http://www.medicine.nova.edu)

**Dentistry**
- Nova Southeastern University College of Dental Medicine [www.dental.nova.edu](http://www.dental.nova.edu)

**Chiropractic**
- Palmer College of Chiropractic [www.palmer.edu](http://www.palmer.edu)

**Podiatry**
- Barry University Podiatric Medicine Program [www.barry.edu/podiatry](http://www.barry.edu/podiatry)

**Veterinary**
- University of Florida College of Veterinary Medicine [www.vetmed.ufl.edu](http://www.vetmed.ufl.edu)

**Optometry**
- Nova Southeastern University College of Optometry [optometry.nova.edu](http://optometry.nova.edu)

**Physician Assistant**
- Florida International University College of Medicine [medicine.fiu.edu](http://medicine.fiu.edu)
- Barry University [www.barry.edu/physician-assistant](http://www.barry.edu/physician-assistant)

In addition to state schools, you also should consider applying to private institutions receptive to out-of-state applicants. If your credentials (GPA, admission test scores) are highly competitive with the national standards for those accepted, you should apply to reputable institutions nationwide.
UNIVERSITY OF MIAMI MILLER SCHOOL OF MEDICINE REQUIREMENTS

The University of Miami Miller School of Medicine accepts only U.S. citizens and permanent residents of the United States who have completed a minimum of 90 semester hours of college work exclusive of courses in military science and physical education. Credits earned at foreign institutions are not accepted. Courses specifically required are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Semesters</th>
<th>Quarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry + Labs</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Organic Chemistry + Lab</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Biochemistry +/- Lab*</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Physics + Labs</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Biology + Labs</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Behavioral Science **</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

*Biochemistry Lab is highly recommended, but not required by all medical schools.

**Behavioral Sciences include courses in: Humanities, Bioethics, Psychology, Sociology

The courses shown above constitute the minimum acceptable preparation for the study of medicine at the Miller School of Medicine. Applicants should keep in mind that accepted students have had extensive coursework in the natural sciences, including many of the recommended courses: Cellular & Molecular Biology, Genetics, Microbiology, Physiology, Immunology, Computer Science, Neuroscience, and Developmental Biology.

At UM Miller School of Medicine AP credits are accepted and can be used to satisfy requirements for English, behavioral science, biology, physics, and inorganic chemistry, as long as the credits appear on a college transcript with a grade and are verified by AMCAS. If a student accepts AP credit for Physics, he/she still needs to take the two-semester College Physics lab sequence at UM (PHY 106 and PHY 108).

Additional information about the Miller School of Medicine is available at [www.miami.edu/medical-admissions](http://www.miami.edu/medical-admissions).
OFF-SHORE AND INTERNATIONAL MEDICAL SCHOOLS
OFF-SHORE AND INTERNATIONAL MEDICAL SCHOOLS

An increasing number of students are exploring medical education in off-shore and international medical schools. There are a number of medical schools that are operated abroad but follow a U.S. curriculum. Students who matriculate at these schools are generally those who are unable to gain admission to a U.S. medical school. Such schools are accredited in the host country, and many are approved for U.S. federal student aid. Students write the United States Medical Licensing Examination (USMLE) in preparation for licensing in the U.S. A Clinical Skills Assessment (CAS) is also required of international medical school graduates. Many of these schools offer clinical training in the U.S. which allows their students to participate in the residency matching program. Students should investigate carefully before embarking on this option and discuss this with the Pre-Health Director. More information can be found on the Educational Commission for Foreign Medical Graduates website www.ecfmg.org

The Request for Packet Submission to Off-Shore and International Medical Schools Form must be completed and submitted to the Pre-Health Office before the Office will submit a committee or cover letter packet to the designated schools. No payment to the Office is required. Please note that this form is not used for the following schools which instead utilize AMCAS and letter packets are submitted via the AMCAS Letter Writer Application: Ponce Health Sciences University School of Medicine, San Juan Bautista School of Medicine, Universidad Central del Caribe School of Medicine, and University of Puerto Rico School of Medicine.
APPLICATION PORTALS AND ENTRANCE EXAMS

MIA
MIAMI
APPLICATION PORTALS

Application portals process the applications submitted for admission to the various health professional schools. Applicants submit one set of application materials and official transcripts to the service. Data is then verified before being forwarded to each school a student is applying to. The objective of application portals is to provide the participating health professional schools with uniform, readable information on their candidates.

The following is a list of application portals:

<table>
<thead>
<tr>
<th>Field</th>
<th>Portal</th>
<th>Description</th>
</tr>
</thead>
</table>
| Allopathic Medicine     | AMCAS    | American Medical College Application Service  
  www.aamc.org             |
| Osteopathic Medicine    | AACOMAS  | American Association of Colleges of Osteopathic Medicine Application Service  
  www.aacom.org             |
| Dentistry Service       | AADSAS   | Associated American Dental School Application Service  
  www.adea.org/aadsas            |
| Podiatry                | AACPMAS  | American Association of College of Podiatric Medicine Application Service  
  www.aacpm.org             |
| Veterinary Medicine     | VMCAS    | Veterinary Medical College Application Service  
  www.aavmc.org            |
| Texas Schools           | TMDSAS   | Texas Medical and Dental Schools Application Service  
  www.utsystem.edu/tmdas    |
| Chiropractic            |          | The US Chiropractic Colleges each have their own applications.             |
| Optometry               | OPTED    | Optometry School of Application Services  
  www.opted.org             |
| Physician Assistant     | CASPA    | The Central Application Service for Physician Assistants  
  caspa.liaisoncas.com/applicant-ux/#/login            |

If you plan to apply to schools and colleges that do not subscribe to an application service, you must communicate directly with the Admissions Office of each institution and follow their application protocol.
STANDARDIZED ENTRANCE EXAMS

The application process to a health professional school usually begins one year prior to matriculation. This cycle begins in the spring of the junior year with the standardized entrance exam. Each of the four-year health professions (with the exception of chiropractic) requires the completion of a standardized entrance exam as part of the admission process. The following is a list of the tests required by the various professional programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>Test 1</th>
<th>Test 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentistry</td>
<td>DAT and CASPer</td>
<td>Dental Admission Test</td>
</tr>
<tr>
<td>Allopathic Medicine</td>
<td>MCAT and CASPer</td>
<td>Medical College Admission Test</td>
</tr>
<tr>
<td>Osteopathic Medicine</td>
<td>MCAT and CASPer</td>
<td>Medical College Admission Test</td>
</tr>
<tr>
<td>Podiatry</td>
<td>MCAT</td>
<td>Medical College Admission Test</td>
</tr>
<tr>
<td>Veterinary Medicine*</td>
<td>GRE</td>
<td>Graduate Record Exam</td>
</tr>
</tbody>
</table>

* Consult individual veterinary and P.A. school for specifics (i.e. general or subject test)

Optometry                        | OAT             | Optometry Admission Test |

MD/PhD                          | MCAT and possibly GRE and CASPer |

Physician Assistant (PA)*        | GRE and CASPer |

Test Preparation
These tests are designed to measure skills and knowledge considered important for successful completion of the professional school curriculum. They are challenging tests which require adequate preparation. Because students have different study methods, the Pre-Health Office does not endorse any one study method or prep program. Some students choose to study independently, others in groups, others with a private tutor or take an on-line or in-person prep course. All students should make sure to take many practice exams to get a feel for how questions are phrased and the length of the exam. It is recommended that you take the appropriate test in the calendar year PRIOR to the year that you plan to enter professional school. Therefore you may take the test following your senior year if you plan to take a gap year after graduation. Do NOT take a national standardized test “to see what it’s like.” Once taken, scores cannot be withheld. Ideally, a student should take an exam once and perform well.

MCAT
The MCAT is offered on select dates in January and March-September, with registration for the 2020 testing year opening in October 2019. Students are encouraged to take the MCAT by July of the application year whenever possible. The scores will then be available early in the admission process. However, taking the exam at the optimal time for the evaluation process makes little sense if you have not completed the appropriate course work or test review to perform at your best. Check the AAMC website (www.aamc.org) for MCAT information and test dates, which are updated annually.

CASPer
This test is administered by Altus Assessments and is offered each month except in March. The last test date for Miller for the 2020 cycle is May 4, 2020. The cost of the exam is $10 and an additional cost of $10 for each school to which you desire your score to be distributed. For more information visit the test website at takecasper.com

Other Admissions Tests
Other admission tests can be taken throughout the year. Taking these exams early will ensure that the scores will be available early in the admission process; however, taking the exam at the optimal time for the evaluation process makes little sense if you have not completed the appropriate course work or test review to perform at your best. Note: The DAT does not test physics, but includes a perceptual motor ability sub-test.
Reasons why students may not be accepted to the Health Professional school of their choice:

- low total or science GPA
- low MCAT or other standardized test score(s)
- low grades in key academic areas - required courses, or courses in your concentration or major area of interest
- declining academic record
- unmet course requirements
- light course load
- limited clinical or community service experience
- unclear commitment to helping people in general and through health and medicine in particular
- poor interview presentation
- interpersonal communication skills not in line with profession
- ineffective personal statement
- weak or inapplicable letters of recommendation
- unclear professional goals
- lack of demonstrated motivation for chosen profession
- late primary application
- incomplete secondary applications
- limited co-curricular activities or achievements
GAP YEAR OPTIONS
GAP YEAR OPTIONS

Most, but not all, students apply to health professional school the summer between their junior and senior years with the goal of beginning the program in the fall semester after graduating from UM with a baccalaureate degree. But some pre-health students may not want to begin a health professional program immediately following completion of the baccalaureate degree. Instead, they may want to take a gap year. Admissions committees look favorably upon a gap year as long as the time has been spent productively. The gap year is a time to strengthen your application, build on any weaknesses, such as a low GPA or limited clinical experience, research, leadership or community service experience. Some students take gap years not to address deficiencies but rather to get real-life experience, work to save money, or to take advantage of a unique opportunity. Below are a few gap year options. Approximately 65% of first year medical school students have taken at least one gap year.

Post-Baccalaureate Programs

Students who feel that their undergraduate preparation is not competitive for admission to health professional school may wish to enroll in a post-baccalaureate program. These can be degree or non-degree programs which offer required pre-health courses for students with non-science degrees or for students with science degrees who are seeking grade enhancement. A comprehensive listing of programs can be found on the AAMC and AACOM websites. Some of these programs have linkage agreements with medical schools.

Post-Baccalaureate Programs for Career-Changers

Students who did not take the pre-requisite science courses for entrance to health professional schools during their undergraduate career may want to enroll in a post-baccalaureate program for career-changers. Post-Baccalaureate Programs for Science Enhancement – Students seeking to enhance their science GPA may want to enroll in a master’s of medical science or master’s of biomedical science program. Special Masters Programs – Students may want to pursue a master’s degree that will open doors to alternative careers, such as a master’s of public health, health administration, pharmacology, genetic counseling, medical physiology, etc. Do your research to find a program that best suits your needs and interests.

Mission Trips

Mission trips are a great way to get clinical and worldly experience. But they can be expensive. Some organizations are VIDA (vidavolunteer.org), MEDLIFE (medilifeweb.org), and Global Brigades (UM chapter). Before committing to such a program, make sure to review the AAMC guidelines for providing patient care during clinical experiences abroad. Research Students who did not have the opportunity to participate in a research project during the undergraduate career, or who are interested in gaining additional research experience, may want to use the gap year for this purpose.

Medical Scribe

A medical scribe is an individual who is paid to accompany a physician during appointments and enter detailed patient data into an electronic medical records system. This allows the physician to focus on evaluating and treating the patient. Being a scribe is a great way to learn medical terminology and observe patient-doctor interactions. PhysAssist, ProScribe, and ScribeConnect are three such options in South Florida.

Employment and Volunteer/Community Service Experience

Students may choose to secure employment in a health-related or non-health field in order to save money for health professional school. Some options include working for Teach for America, City Year, or the Peace Corps, becoming certified and working as an Emergency Medical Technician, nurse’s assistant, or medical scribe (mentioned above). If the employment position is not health-related, students should make sure to continue getting health/animal experience during the gap year through volunteer work and community service. It is important to demonstrate that you care about people (and animals for the pre-vets).
FAQs
Where do I get clinical experience?
Students should seek out varied clinical experience. In addition to shadowing health professionals, you may volunteer at hospitals, clinics, private offices, institutions, nursing homes, hospice facilities and animal shelters (pre-vets). You may want to get certified as an emergency medical technician (EMT) or become a licensed certified nursing assistant (CNA). Or you may want to participate in a medical mission trip. We suggest students contact any of the pre-health clubs’ shadowing coordinators for opportunities. Network and use your family contacts. **What is most important in all these activities is to have patient contact.**

How much shadowing do I need?
Shadowing is a key component of your application, particularly to medical, dental, and veterinary schools. Here are the basics:

- You can shadow anywhere; it does not have to be in Miami
- Patient contact is key
- A minimum of three 40-hour shadowing experiences supplemented with clinical volunteering
- We suggest one shadowing experience with a general practitioner

When is the best time to take the standardized test (e.g. MCAT, DAT, etc.)?
It is recommended that you take the appropriate test in the calendar year prior to the year that you plan to enter professional school. June and July are the most popular testing months but early is best; you will need to sign up well in advance.

How should I prepare for the standardized test (e.g. MCAT, DAT, etc.)?
Because students have different study methods, the Pre-Health Office does not endorse any one study method or prep program. Some students choose to study independently, others in groups, others with a private tutor or an online or in-person course. Students who are planning to take the MCAT should use the resources put out by the AAMC. All students should make sure to take many practice exams to get a feel of the way questions are phrased and for timing.

If I take a standardized test multiple times, what score do they look at?
Most schools generally look at the best overall score but they will receive all scores. Try to take your professional school entrance exam only once and at most twice.

How do I choose which schools/programs to apply to?
Do your homework. Review schools’ official websites. Keep in mind that public schools give preference to in-state applicants. Private schools do not. You may want to utilize the following resources:
Allopathic Medical Schools (M.D.) – The Medical School Admissions Requirements (MSAR) resource updated annually by the AAMC provides profiles of each U.S. and Canadian allopathic medical school. You may purchase the MSAR for $28 on aamc.org.

Osteopathic Medical Schools (D.O.) – Download a free copy of the Osteopathic Medical College Information Book updated and released annually by aacom.com.

Dental Schools – The ADEA Official Guide to Dental Schools is updated annually and provides profiles for the 76 U.S. and Canadian dental schools. It is available for purchase for $40 at adea.org.

Veterinary Schools – The Veterinary Medical School Admissions Requirements (VMSAR) resource updated annually by the AAVMC provides profiles of each U.S. and Canadian veterinary medical school. You may purchase the VMSAR for $35.

Optometry Schools – Refer to the Association of Schools and Colleges of Optometry website www.opted.org which occasionally releases a freely downloadable admission requirements information book.

Podiatry Schools – Download a free copy of the Podiatric Medical College Information Book updated and released annually by aacpm.org.

Chiropractic Schools – Refer to the American Chiropractic Association website www.acatoday.org for information on accredited U.S. chiropractic colleges.

Physician Assistant schools- Refer to the American Association of Physician Assistants (AAPA) at www.aapa.org for information on U.S. PA schools.

What if I’m an international student?
Not all U.S. health professional schools accept international students. Make sure to carefully review each school’s policy on this.

Will professional schools accept AP/IB credit?
Some do, but not all. Contact individual schools on their policies regarding AP and IB credit.

Will professional schools accept online classes?
Some do, but not all. Contact individual schools on their policies regarding online courses.

Can a pre-medical student submit the AMCAS application without an MCAT score?
Yes. If you have an MCAT test date enter in your anticipated test date. If you have recently taken the test and have not yet received a score, enter in your test date. Schools will automatically receive the score once it is released by the AAMC. If you retake the MCAT, enter the new test date and resubmit the AMCAS application. You will not have to repay the application fee.

When should I submit my primary application (AMCAS, AACOMAS, AADSAS, TMDSAS, etc.)?
You should aim to submit your application no later than August 1 of the year prior to intended matriculation. The earlier the better!

When should I submit my secondary applications?
Again, the earlier the better! We suggest submitting secondary applications within three weeks of receiving them.

What do I do if I’m a re-applicant?
If you have a cover letter packet on file that you want the Pre-Health Office to re-submit, you must complete
the re-applicant request form (available on our Blackboard site, on our website, and in the Pre-Health Office). If you have a committee letter packet on file, you must schedule a 15 minute update interview with Prof. Gaines during the committee letter interview period February-May (professional business attire is not required for an update interview). The update interview may be in person in the Pre-Health Office or via Skype for individuals no longer in the Miami area. Committee letter re-applicants must call the Pre-Health Office to schedule the update interview (adhere to the interview dates), and then make sure to complete and submit to the Pre-Health Office the re-applicant request form, an updated curriculum vitae, and an updated professional development activities form at least 48 business hours before the scheduled update interview. If you are requesting a cover letter packet for the first time, follow the cover letter packet procedures. If you are requesting a committee letter packet for the first time, follow the committee letter procedures.

How do I get my committee or cover letter packet submitted to health professional school?
Once you submit your primary application to the application portal (AMCAS, ACOMAS, TMDSAS, AADSAS, etc.), you must provide a copy of your complete submitted primary application to the Pre-Health Office. The portal allows you to save your application as a pdf file. Once you save the application as a pdf file you may email it to prehealth@miami.edu or print it and drop it off at the Office. If you are applying to AMCAS, you also must provide the Pre-Health Office with the AMCAS letter request form. You may save the form as a pdf file and email it to prehealth@miami.edu or print it and drop it off at the Office. When we receive the application, we will check your pre-health file for all required documents, including your six individual letters that will be part of the packet. If we have all the required documentation you will receive an email notification from the Pre-Health Office that you have been placed in queue for submission of your committee letter packet. The length of the queue varies. We cannot tell you your place in the queue. Please be patient and keep in mind that the earlier you submit your paperwork, the higher your position in the queue. We work as quickly as we are able to submit your letter packet. You will receive email notification once your packet has been submitted. Additional instructions for applying to AMCAS, ACOMAS, TMDSAS and AADSAS are provided on our website.

A note on saving your AMCAS application as a pdf file: The AMCAS portal will generate one application for each osteopathic medical school you apply to. The Pre-Health Office needs a copy of only one of your submitted applications. For example, if you apply to ten osteopathic medical schools, send us your application for just one of those schools. To do so, go to Manage my Programs - Program status - Blue download button.

A note on saving your AADSAS application as a pdf file: Click the “Print Application” button on the “My tools” menu. This will open the application in a web page. Then save the web page as a pdf by selecting print and then selecting Adobe as the printer.

Will my committee/cover letter packet be submitted without a standardized test score?
Yes. Applicants who are applying to medical or dental school with a cover letter packet do not have to have received their MCAT/DAT score prior to the cover letter packet being submitted to individual health professional schools or application portals.

Can I send my transcripts before I submit my professional school application?
Yes. As soon as you create an online account and receive a personal identification number you can begin requesting your transcripts. However, if you currently are taking classes at an institution wait until you have received your semester grades to submit that school’s transcript.

How do I submit my transcript requests?
Request transcripts directly from the registrar’s office at every institution you have received credits from. Most schools allow you to do it online, while you may need to speak to the school’s registrar office at
others. The institutions will send the transcripts directly to the schools. The Pre-Health Office does not process transcript requests.

UM transcripts are processed by a third party company called Credentials Solutions 847-716-3005. Students have the option to request an e-pdf transcript (which is sent electronically to AMCAS) or paper copy (which is mailed via USPS). All requests must be made through Canelink. Students will be prompted each step of the way during the ordering process. Students requesting to have their transcript sent via e-pdf to AMCAS must enter their 8 digit AAMC ID # and Transcript ID/Code. Students requesting to have their transcripts sent via USPS mail, at the end of the order the system will automatically generate a pre-populated Fax Note which will need to be faxed directly to Credentials for processing.

Where can I learn about financial aid options for health professional school?
Generally institutions will offer financial aid in the form of grants and scholarships to select students. But this type of aid is limited. Students should look into outside fellowships, scholarships, and service commitment scholarships. Below are some resources for exploring financial aid opportunities.

- fafsa.ed.gov
- finaid.org
- nslds.ed.gov
- studentaid.ed.gov
- nhsc.hrsa.gov/scholarships
- explorehealthcareers.org/en/careers/funding
- aacom.org/InfoFor/students/finaid/
- goarmy.com/amedd/education/hpsp.html
- airforce.com/opportunities/healthcare/education
- navy.com/joining/college-options/hpsp.html
- www.ihs.gov/scholarship/index.cfm

When should I expect an interview invite from a health professional school?
You may receive an invite for an interview as early as August. Remember, the earlier you submit your primary and secondary applications, letter packet, transcripts, and take the standardized entrance exam, the earlier health professional schools will review your application and the better chance you have of getting interview invitations.
RESOURCES
CAMPUS RESOURCES

Research

Office of Undergraduate Research and Community Outreach
Ungar Building, Room 103
305-284-5058
miami.edu/ugr/

Tutoring

Academic Resource Center
N-201 Whitten University Center
305-284-2800
umarc.miami.edu/arc

Personal Statements

Writing Center
Ashe Building, Room 321
1252 Memorial Drive
305-284-2182
as.miami.edu/writingcenter/

Résumés, Interviews and Personal Statements

Toppel Career Center
5225 Ponce de Leon Blvd
305-284-5451
www.sa.miami.edu/toppel

Community Service

Butler Center for Service and Leadership
Student Activities Center, Room 204
305-284-4483
miami.edu/volunteer-services/
<table>
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<tr>
<th>Relevant Websites</th>
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<tr>
<td><strong>Alpha Epsilon Delta – The Premedical Honor Society</strong></td>
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<td><a href="http://www.nationalaed.org">www.nationalaed.org</a></td>
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<td><strong>American Association of Chiropractic Colleges</strong></td>
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<td><a href="http://www.chirocolleges.org">www.chirocolleges.org</a></td>
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<td><strong>American Association of Colleges of Osteopathic Medicine</strong></td>
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<td><a href="http://www.aacom.org">www.aacom.org</a></td>
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<td><strong>American Association of Colleges of Osteopathic Medicine Application Service</strong></td>
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<td><a href="http://aacom.asa.com">http://aacom.asa.com</a></td>
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<td><strong>American Association of Colleges of Podiatric Medicine</strong></td>
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<td><strong>American Dental Education Association</strong></td>
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<td><strong>American Medical Association</strong></td>
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<td><strong>American Medical Student Association</strong></td>
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<td><a href="http://www.amsa.org">www.amsa.org</a></td>
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<td><strong>Physician Assistant Education Association (PAEA)</strong></td>
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<td>paeozone.org</td>
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<td><strong>American Osteopathic Association</strong></td>
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<td><a href="http://www.aoa-net.org">www.aoa-net.org</a></td>
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<td><strong>American Public Health Association</strong></td>
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<td><a href="http://www.apha.org">www.apha.org</a></td>
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<td><strong>Associated American Dental Schools Application Service</strong></td>
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<td><a href="http://aadsas.adea.org">http://aadsas.adea.org</a></td>
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<td><strong>Association of American Medical Colleges</strong></td>
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<td><strong>Association of American Medical Colleges Application Service</strong></td>
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<td><a href="http://www.aamc.org/amcas">www.aamc.org/amcas</a></td>
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<td><strong>Association of American Veterinary Medical Colleges</strong></td>
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<td><a href="http://www.aavmc.org">www.aavmc.org</a></td>
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<td><strong>Dental Admissions Test</strong></td>
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<td><strong>Explore Health Careers</strong></td>
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<td><a href="http://www.gre.org">www.gre.org</a></td>
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<td><strong>Medical College Admission Test</strong></td>
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<td><a href="http://www.aamc.org/mcat">www.aamc.org/mcat</a></td>
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<td><strong>American Optometric Association</strong></td>
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Minority Association of Pre-Health Students
www.snma.org/premedical.php

Student Doctor Network
http://studentdoctor.net/

Student National Medical Association
www.snma.org

Texas Medical and Dental Schools Application Service
www.utsystem.edu/tmdsas

Veterinary Medical College Application Service
www.aavmc.org
FINAL THOUGHTS FOR THE PRE-HEALTH STUDENT

Please remember that the Office of Pre-Health Advising and Mentoring exists to support undergraduates at UM interested in a health profession, in the process of seeking admission to health professional school. We want very much to see you succeed and will do whatever we can to assist you. We understand the demands on you and we will try to ameliorate your anxiety.

We know it is a stressful time when you are applying to professional schools. We ask you to be respectful and patient as your file is being assembled. Also, try to avoid multiple cancellations of your committee letter interview. It has an impact on other students who need appointments.

If you have questions or concerns during the application process, please refer FIRST to the “Pre-Health Student Guide.” This guide is comprehensive and addresses most problems that may arise. Should an issue remain unanswered, you may send e-mails to the Pre-Health Office and they will be answered promptly.

We share your hopes and dreams of becoming a future health-care professional. The staff in the Pre-Health Office is committed to turning those dreams into a reality. But we need your help. Please become knowledgeable about the procedures for requesting interview(s), letters of evaluation, and important deadlines. Remember to demonstrate the kinds of behaviors that suggest the character of an aspiring health-care professional.

Best of luck!

The Pre-Health Advising and Mentoring