



RICE UNIVERSITY

# Academic Advising



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# Welcome Letter from the OAA

To our Rice Pre-Health Professions Students,

As you embark on your undergraduate career, we recommend that you use this period of your life to explore your options, discover who you are, develop strong critical thinking and study skills, engage in experiences that allow you to integrate your learning with practical application, and begin to make meaningful contributions to your community. **You don't have to be a doctor to have a meaningful career in healthcare.** Should you decide that a career in the allied health professions is what you intend to pursue, it is our hope that this guide will address many of your concerns.

The Allied Health Professions Guide is intended to provide an overview of the application process to eight common allied health programs in the United States, including timelines, coursework, and other components that comprise a competitive application. We believe this will serve as a useful resource in creating your academic plan at Rice and throughout the application process.

Advisors in the Office of Academic Advising (OAA) are able to assist you with your journey into the allied health professions. While there are many resources you may choose to consult regarding your potential path towards admission to an allied health program, we strongly recommend that you contact the OAA for tailored advice regarding your personal plan.

Additionally, the OAA provides health professions advising for students interested in other healthcare fields like medicine and dentistry. Use this guide to thoroughly explore all your options, as there are many career paths that lead to employment in healthcare settings or settings with animals.

As you delve deeper into this process, our advisors are available to guide you through the process. We encourage you to schedule an appointment for further assistance. We look forward to working with you!

*The Office of Academic Advising*

**Ley Student Center – Suite 132 | 713-348-4060 | <http://oaa.rice.edu>**

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## Meeting with an Advisor

Pre-health professions advising at Rice is handled by a small community of advisors, including Divisional Advisors (pre-major faculty advisors) and Peer Academic Advisors (PAAs). Each has significant training and resources provided by the OAA regarding health professions. However, with students interested in the allied health professions being a relatively small population on campus, we encourage you to connect with the OAA as soon as possible, as this will allow you to ask us specific questions and for us to connect you with other students interested in your specific health profession. Additionally, our Divisional Advisors and PAAs have training more specific to pre-medical and pre-dental students, and therefore they may not fully grasp the nuances associated with pursuing a career in the allied health professions. Call 713-348-4060 or stop by Suite 132 in the Ley Student Center to set up an appointment with an advisor in the OAA.

## Accreditation

Accreditation is a process that is done by a professional organization to ensure that academic programs offered in various disciplines meet nationally recognized standards. Ensuring that you know the accrediting body for your profession will be important so that you select accredited professional programs to apply to. Each field's accrediting body is listed within this guide so that you can refer to the accreditation body's website for a list of professionally accredited programs. Choosing a program without accreditation may not allow you to find gainful employment or licensure. Additionally, you can use the accrediting body's current status for each program to determine if you will apply to it. Some schools' programs may be on probation status from the accrediting body, which may signal problems with that school's program (although this is not always the case). Other programs may be in the process of gaining full accreditation if they are new. These may be factors in deciding where you want to apply.

# Allied Health Professions Timeline

This timeline is meant to provide a general sense of what typically happens for students wishing to enter a health professions program in the fall immediately after graduating from Rice. Your timeline could vary slightly or significantly depending on your own academic and career plans.

|   |   |
|---|---|
| <p><b>Freshman Year – Fall Semester</b></p> <ul style="list-style-type: none"> <li>• Begin to survey career options in healthcare; use <a href="http://www.explorehealthcareers.org">www.explorehealthcareers.org</a></li> <li>• Attend the Health Professions Advising Orientation for freshmen</li> <li>• Explore different majors that interest you</li> <li>• Visit the Center for Career Development (CCD) to identify summer programs/job opportunities; apply for an OwlEdge Externship</li> </ul> | <p><b>Freshman Year – Spring Semester</b></p> <ul style="list-style-type: none"> <li>• Engage with the Rice community of advising to begin planning a tentative course of study</li> <li>• Visit the Center for Civic Leadership (CCL) to identify volunteer programs of interest</li> <li>• Conduct informational interviews or shadow professionals in the allied health fields you are considering</li> <li>• Make plans to gain more exposure to fields over the summer if you are still undecided</li> </ul>           |
| <p><b>Sophomore Year – Fall Semester</b></p> <ul style="list-style-type: none"> <li>• Attend the Sophomore Health Professions Information Session</li> <li>• Plan the intellectual focus of your curriculum; narrow choices for a major</li> <li>• Narrow your choices of allied health professions</li> <li>• Check <u><i>individual allied health program admission requirements at all schools you are considering</i></u> to ensure your academic plan accounts for them</li> </ul>                   | <p><b>Sophomore Year – Spring Semester</b></p> <ul style="list-style-type: none"> <li>• Continue volunteer work</li> <li>• Declare a major if you have not done so</li> <li>• Apply for summer research or internship programs</li> <li>• Begin to obtain observation experience, particularly if your allied health field sets certain requirements for it</li> <li>• Visit the Study Abroad Office to plan ahead for opportunities during your junior or senior year</li> </ul>   |
| <p><b>Junior Year – Fall Semester</b></p> <ul style="list-style-type: none"> <li>• Meet with an advisor in the OAA to determine if you need to go through the Open File process</li> <li>• Begin preparing your curriculum vitae, draft of your personal statement, and any other documents your allied health program requires</li> <li>• Begin going over standardized test requirements and make a plan to study for and take the standardized test</li> </ul>   | <p><b>Junior Year – Spring Semester</b></p> <ul style="list-style-type: none"> <li>• Consider potential gap year opportunities: employment, shadowing (if needed), volunteer programs, continued education to fulfill necessary prerequisite classes elsewhere, etc.</li> <li>• Take your standardized test if you have not done so or plan to take it in the near future</li> <li>• Begin web-based common applications (PharmCAS, OTCAS, etc.) as they open (could be in the summer or upcoming fall semester)</li> </ul> |
| <p><b>Senior Year – Fall Semester</b></p> <ul style="list-style-type: none"> <li>• Complete remaining prerequisite coursework</li> <li>• Prepare to interview at professional schools</li> </ul>  | <p><b>Senior Year – Spring Semester</b></p> <ul style="list-style-type: none"> <li>• Update the OAA with your admission status</li> </ul>   |

# General Prerequisite Information

1. No prerequisite course should be taken pass/fail. Professional programs will want to see a letter grade for all coursework specified as a prerequisite course.\*
2. Many allied health programs will accept prerequisites taken at a community college, but it is possible that some may not. In general, if you are able to take all or most prerequisites at a four-year college or university, that will be strongest for your application.
3. If you take prerequisite courses at both Rice and another institution, remember that you will have to send both transcripts to the programs at which you apply. You may be forced to do this for some professions where a required prerequisite course is not offered at Rice.
4. FWIS courses could possibly be used to count toward English prerequisite requirements. In this guide, FWIS is not listed as fulfilling English prerequisites. FWIS is a unique Rice program that most other universities in the country do not have, so contacting admissions representatives at the programs you want to apply to can be helpful in determining if your FWIS class does count.
5. A few professional programs allow for students to gain admission without a bachelor's degree. This varies by school and program, but we recommend you complete your bachelor's degree at Rice before matriculating to a professional program. This gives you time to complete all prerequisites without rushing, get plentiful co-curricular experience to build your application, and have a degree to fall back on should you decide to switch careers at a later time in your life. Applicants in these situations generally have a stronger application with a bachelor's degree.
6. The amount of prerequisite courses that you may have in progress at the time of application varies from program to program. Some programs will only specify that all prerequisite course work be complete before you *matriculate* to the program. Other programs will say that all prerequisite coursework must be complete before you begin *applying*. And still many more programs will have requirements in the middle, specifying, for example, that only 6 credit hours of prerequisite coursework may be in progress at the time of application. Research programs closely to inform your four-year planning.
7. AP credit being accepted as a prerequisite will vary significantly from program to program. In general, you will need to check with each program to make that determination. However, many allied health professions do not have as many prerequisites as medical school, so retaking a few courses that you have AP credit for may be a positive thing for your application.
8. **Common prerequisites that may need to be taken outside of Rice:**
  - a. Human Anatomy and Physiology Labs – Rice offers anatomy and physiology: KINE 300, which is now 4 credit hours and includes the lab, and KINE 301, which is 3 credit hours and does not include the lab.
  - b. Lifespan Human Development
  - c. Introductory Business Management
  - d. Advanced Human Nutrition or Animal Nutrition – HEAL 103 is the only nutrition class at Rice, so if you need more than 3 credit hours of nutrition or need an animal-specific course, seek that class elsewhere.

- e. The OAA may be able to help you find options for classes to take outside of Rice. If you are from out-of-state, it might be wise to plan ahead to take the class at a college or university in your home state so that you pay the in-state tuition rate for the class or classes.
- 9. Conflicting prerequisites (classes historically offered in the same time slots):**
- a. KINE 301 (Physiology) and BIOS 301 (Biochemistry) may be offered during the same time.
  - b. PHYS 126 (General Physics 2) and BIOS 424 (Microbiology) are offered during the same time. These two are spring only classes so they must be taken in separate spring semesters.
10. In general, you can major in whatever you would like, as long as you have a plan to incorporate prerequisite courses that may be outside of your major. In many cases, a major or minor outside of the sciences can help a student stand apart from other applicants.
11. You should strive for the highest possible grades in all of your courses. Many allied health professions programs are just as competitive as medical school. Generally, nothing lower than a C would be acceptable for any prerequisite course, and many programs set a minimum 3.0 GPA for applicants (although the competitive applicants have well above a 3.0). Some programs will care particularly about your most recent 45 or 60 credit hours, which means that as the courses get harder in your academic plan, the more they matter for these allied health programs.
12. \*Due to the COVID-19 pandemic that started in the spring of 2020, many allied health profession programs have published guidance and information as it relates to the pandemic's effects on students. We still recommend students contact programs directly to fully understand how they may be handling COVID-related situations. Some professional organizations' COVID-19 statements are below:
- a. Dietetics: <https://www.eatrightpro.org/acend/public-notices-and-announcements/acend-update/acend-covid-19>
  - b. Nursing: <https://www.acenursing.org/covid-19-news-announcements/>
  - c. Occupational Therapy: <https://www.aota.org/coronavirus>
  - d. Optometry: <https://www.aoa.org/optometrists/for-educators/accreditation-council-on-optometric-education/advisory-information-from-acoe-re-covid-19>
  - e. Pharmacy: <https://www.acpe-accredit.org/>
  - f. Physical Therapy: <https://www.apta.org/patient-care/public-health-population-care/coronavirus>
  - g. Physician Assistant: <http://www.arc-pa.org/arc-pas-response-to-covid-19/>
  - h. Veterinary Medicine: <https://www.avma.org/resources-tools/animal-health-and-welfare/covid-19>

# Dietetics/Nutrition

Dietitians and nutritionists (including registered dietitian nutritionists, or RDNs) are experts who translate the science behind food and nutrition into practical solutions for healthy living and lifestyle changes. These professionals work in a variety of environments, including hospitals, schools, public health clinics, nursing homes, the food industry, and in private practice. Dietitians and nutritionists educate patients and/or the public about nutrition, administer medical and nutritive therapy, manage food service preparations, work for healthcare or food companies, and collaborate with other healthcare staff like doctors and nurses to ensure that patient care includes a proper and appropriate diet. As of 2024, all RDNs will be required to have a master's degree.

Accrediting body: **Accreditation Council for Education in Nutrition and Dietetics (ACEND), an agency of the Academy of Nutrition and Dietetics (AND)**

## Important notes:

1. To become a registered dietitian, you will need to complete a certain amount of hours of practice. Some programs *do not* incorporate these hours into their programs (“didactic programs”), meaning you will need to secure an internship after you complete the coursework. Other programs *do* incorporate these hours into their programs (“coordinated programs”). See this page for more details:  
<http://www.eatrightpro.org/resources/acend#accredited-programs>
2. Not all nutrition programs are master's degrees only. Many universities offer dietetics or nutrition as an undergraduate major, where undergraduate students at the university gain admission to the major after completing prerequisite coursework in their first year or two years. Other universities offer a master's degree but only in a 5-year format for their undergraduate nutrition majors. You will likely need to look carefully for a program that is a coordinated program at the graduate level only.
3. ACEND has additional resources for students here:  
<http://www.eatrightpro.org/resource/acend/students-and-advancing-education/information-for-students/registered-dietitian-nutritionist-fact-sheet>

## Academics and Prerequisite Courses

Admission to graduate programs in dietetics and nutrition vary depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. **Warning! The prerequisites in the table below will NOT suffice for every dietetics program in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.** This may also be too many credits for certain applicants only applying to a couple of programs. Again, visit the schools' websites to determine exact requirements.

| Life Sciences (23 credit hours) |                |                                  |
|---------------------------------|----------------|----------------------------------|
| Biology with Lab                | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211 |
| Microbiology                    | 3 credit hours | BIOS 424                         |
| Anatomy and Physiology          | 6 credit hours | KINE 300 and KINE 301            |



|  |                |  |
|--|----------------|--|
| Nutrition                                  | 3 credit hours | HEAL 103   |
| Advanced Nutrition                         | 3 credit hours | <i>Must be taken outside of Rice</i>                 |
| <b>Physical Sciences (19 credit hours)</b> |                |  |
| General Chemistry with Lab                 | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154 |
| Organic Chemistry with Lab                 | 8 credit hours | CHEM 211, 212, and 215                               |
| Biochemistry                               | 3 credit hours | BIOS 301   |
| <b>Other (15 credit hours)</b>             |                |  |
| Economics                                  | 3 credit hours | ECON 100   |
| Mathematics                                | 3 credit hours | MATH 101   |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315                           |
| Psychology                                 | 3 credit hours | PSYC 101   |
| Sociology                                  | 3 credit hours | SOCI 101   |

To provide you with a specific example of specific courses needed for one program, below is the coursework needed for admission to the Master of Clinical Nutrition – Coordinated Program at UT Southwestern.

|  |                |   |
|--|----------------|---|
| <b>Life Sciences (20 credit hours)</b>     |                |   |
| Microbiology                               | 3 credit hours | BIOS 424  |
| Human Physiology                           | 4 credit hours | KINE 301; <i>lab may be taken outside of Rice</i> |
| Genetics                                   | 3 credit hours | BIOS 344  |
| Nutrition                                  | 3 credit hours | HEAL 103  |
| Nutrition Through the Lifecycle            | 3 credit hours | <i>Must be taken outside of Rice</i>              |
| <b>Physical Sciences (11 credit hours)</b> |                |   |
| General Chemistry with Lab                 | 4 credit hours | CHEM 121/123 or 151/153                           |
| Organic Chemistry with Lab                 | 4 credit hours | CHEM 211 and 215                                  |
| Biochemistry                               | 3 credit hours | BIOS 301  |
| <b>Other (18 credit hours)</b>             |                |   |
| English (must include composition)         | 6 credit hours | Any ENGL courses that include significant writing |
| Mathematics                                | 3 credit hours | MATH 101  |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315                        |
| Social Science                             | 3 credit hours | PSYC 101, SOCI 101, ANTH 101 or higher            |
| Business Management                        | 3 credit hours | <i>Inquire; may be taken outside of Rice</i>      |

## Standardized Test

Most programs will require the Graduate Record Exam (GRE). See the appendix on the GRE.

## Co-Curricular Activities

Because admission to dietetics and nutrition programs are so competitive, standing apart from the crowd will be in your best interest. Gaining some experience and exposure to the world of nutrition and dietetics is important; this can include shadowing, volunteering, or working in a healthcare setting with dietitians or in any environment where nutritionists and dietitians work. You should be able to clearly define what a dietitian does and understand the profession that you plan to commit to after getting this clinical experience.

In addition to these clinically-related activities, choose activities that are meaningful to you and can demonstrate leadership abilities. Whether you enjoy sports, political action or activism, service opportunities, or interest groups, go after what you enjoy.

## **Application Process**

Competitive applicants have high GPAs, particularly in prerequisite courses. Many allied health professions programs place an emphasis on grades, so make this an important piece of your pre-professional journey. Most applications will also require a personal statement where you will share your career goals, as well as letters of recommendation from professors, or other advisors and professionals.

Academic programs in dietetics have no centralized application service, however the [Dietetic Internship Centralized Application Service \(DICAS\)](#) exists for dietetic internships. This means that you can apply to schools individually and apply to internships centrally. For coordinated programs, a student may apply for a graduate program to a school through the school's application website and simultaneously apply for an internship through DICAS which is built into the graduate program; in other words, 2 applications for 1 whole experience.

Remember that if you take prerequisites outside of Rice – and you probably will in order to fulfill the advanced nutrition requirement – then you will need to send your schools multiple transcripts.

# Nursing

Nursing is the nation's largest healthcare profession with more than 3.1 million registered nurses (RNs) practicing nationwide. Despite its large size, many more nurses are needed in the foreseeable future to meet the growing demand for nursing care. In fact, nursing students comprise more than half of all health professions students. Nurses comprise the largest single component of hospital staff, are the primary providers of hospital patient care, and deliver most of the nation's long-term care. With more than four times as many (RNs) in the United States as physicians, nursing delivers an extended array of healthcare services in just about every area of medicine.

RNs in the United States often have an associate's degree from a community college. However, demand for nurses with the four-year Bachelor of Science in Nursing (BSN) has risen over recent years. The primary pathway to professional nursing, as compared to technical-level practice, is the BSN. After a BSN, nurses may pursue a master's degree or a doctoral degree to become nurse practitioners or other specialty nursing professionals.

**Accrediting body: Accreditation Commission for Education in Nursing (ACEN)**

**Important notes:** There are many types of nursing education pathways. Here's an overview of each:

1. **RN** – To be a registered nurse (RN), you need to complete an associate's degree in nursing at a 2-year or community college.
2. **RN to BSN** – This pathway is designed for RNs who want to get their 4-year degree. Some programs exist that allow for an RN to complete both a BSN and continue directly into a master's degree to become a nurse practitioner.
3. **BSN for non-nursing majors** – For a student who has a bachelor's degree in another field, this option would be the best. For Rice students, you may complete your Rice degree in any major you would like and take much of the prerequisite coursework at Rice. Then you can apply for a program like this.
4. **BA/BS to MSN** – There exist some programs that allow students to go straight into a master's degree in nursing without a BSN. These direct entry programs do require prerequisite courses, and some may award a BSN during the program of study while others may not. For students wishing to go into graduate coursework as fast as possible, these can be good options.

## Academics and Prerequisite Courses

Admission to BSN and graduate-level nursing programs continues to be competitive. Unlike other allied health professions, nursing requires many prerequisite courses, and a few of them do not exist at Rice. If you want to pursue nursing in the state of Texas, prepare to take some prerequisite courses at a community college in Texas. **Warning! The prerequisites in the table below are for the Alternate Entry MSN for non-nursing majors at University of Texas at Austin. The classes listed below will NOT suffice for every nursing program in Texas or the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Sciences (20 credit hours)</b>       |                |   |
|---|----------------|---|
| Anatomy and Physiology with Labs**      | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| Microbiology                            | 3 credit hours | BIOS 424  |
| Pharmacology                            | 3 credit hours | <i>Must be taken outside of Rice</i>                              |
| Nutrition                               | 3 credit hours | HEAL 103  |
| Human Growth and Development (Lifespan) | 3 credit hours | <i>Must be taken outside of Rice</i>                              |
| <b>Other (3 credit hours)</b>           |                |   |
| Nutrition                               | 3 credit hours | HEAL 103  |
| Statistics                              | 3 credit hours | STAT 280, 305, 310, or 315  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

## Standardized Test

Most programs will require the Graduate Record Exam (GRE). See the appendix on the GRE.

## Co-Curricular Activities

In general, nursing schools have paid the most attention to GPA and standardized test scores. While there may eventually be a push to have nursing candidates evaluated holistically, numbers appear to be the primary factor in admission.

However, like any other career in the health professions, it would be important to still know what you are getting into. Shadow or conduct an informational interview with nurses who work in a variety of settings in order to get a better sense of the profession.

## Application Process

[NursingCAS](#) is the centralized application service for nursing programs, associate's degree through doctoral degree. Not all BSN or MSN nursing programs will use NursingCAS, and since prerequisite requirements vary, it will be important to go to individual schools' sites to understand individual application procedures.

# Occupational Therapy

Occupational therapy is a healthcare profession that focuses on helping people of all ages regain, develop, or master everyday skills in order to live independent, productive, and satisfying lives. Occupational therapy services are provided for the purpose of promoting health and wellness to those who have or are at risk for developing an illness, injury, disease, disorder, condition, impairment, disability, activity limitation, or participation restriction. Occupational therapy addresses the physical, cognitive, psychosocial, sensory, and other aspects of performance in a variety of contexts to support engagement in everyday life activities that affect health, well-being, and quality of life. Occupational therapy requires that the entry-level degree be either a master's or doctoral degree, however there is a recent push to make the entry-level degree be a doctoral degree across the nation, so students should be looking at doctoral-level degree programs. Students who have successfully completed an accredited entry-level degree program may be eligible to sit for the national certification examination as an occupational therapist. Occupational therapy students are required to complete two levels of supervised fieldwork in addition to completing the required coursework.

**Accrediting body: Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA)**

Program directory: <https://acoteonline.org/all-schools/>

**Important note:** There are 9 universities with Occupational Therapy programs in Texas. ACOTE has supported transitioning all occupational therapy programs to the doctoral level, so expect to see more programs converting from a master's program to a Doctor of Occupational Therapy (OTD) program in the next few years. See this page for more details on accredited programs: <https://www.aota.org/Education-Careers/Find-School.aspx>

## Academics and Prerequisite Courses

Admission to occupational therapy programs vary depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. **Warning! The prerequisites in the table below will NOT suffice for every occupational therapy program in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Science (15 credit hours)</b>   |                |  |
|------------------------------------|----------------|--|
| Anatomy and Physiology with Labs** | 8 credit hours | KINE 300 and KINE 301; <i>Lab may be taken outside of Rice**</i> |
| Biology                            | 4 credit hours | BIOS 201 and BIOS 211  |
| Physics                            | 3 credit hours | PHYS 101/103 OR PHYS 125   |
| <b>Other (15 credit hours)</b>     |                |  |
| Statistics                         | 3 credit hours | STAT 280, 305, 310, or 315                                       |
| Medical Terminology                | 3 credit hours | HEAL 132   |
| Abnormal Psychology                | 3 credit hours | PSYC 332   |
| English                            | 3 credit hours | Any ENGL course that focuses on writing                          |
| Sociology                          | 3 credit hours | SOCI 101 or higher   |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

To provide you an example, below is the coursework needed for admission to the Doctor of Occupational Therapy program at the University of Texas Medical Branch.

| <b>Sciences (17 credit hours)</b>  |                |   |
|------------------------------------|----------------|---|
| Anatomy and Physiology with Labs** | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| Human Movement or Physics          | 3 credit hours | KINE 302 or PHYS 125  |
| Lifespan Human Development         | 3 credit hours | <i>Must be taken outside of Rice</i>                              |
| Neuroscience                       | 3 credit hours | NEUR 362, 380, or 385   |
| <b>Other (9 credit hours)</b>      |                |   |
| Statistics                         | 3 credit hours | STAT 280, 305, 310, or 315  |
| Behavioral Science                 | 3 credit hours | PSYC 101, SOCI 101, or ANTH 201                                   |
| Abnormal Psychology                | 3 credit hours | PSYC 332  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

## Standardized Test

Most programs will require the Graduate Record Exam (GRE). See the appendix on the GRE.

## Co-Curricular Activities

Most occupational therapy programs will want to see some experience in the field, and some will specify a number of hours that they want to see completed before you apply to the program or before you matriculate. For example, at the University of Texas Medical Branch, the program requires 20 hours with occupational therapy professionals in one or more types of clinical settings. Hours like these can be gained through either volunteer work, shadowing, or a paid position working with occupational therapists and their patients. Other programs may require more hours, so be ready to spend time logging hours.

## Application Process

Occupational Therapy has the [OTCAS](#) centralized application service; many schools utilize it. Many programs will specify that a letter of recommendation must come from an occupational therapist, so it will be important to build a good relationship with an occupational therapist during your college career and during your hours of shadowing or volunteer experience. OTCAS opens in July for students wishing to matriculate in the fall term of the following year.

# Optometry

Optometrists are the primary healthcare professionals for the eye, and they examine, diagnose, treat, and manage diseases, injuries, and disorders of the visual system, the eye, and associated structures as well as identify related systemic conditions affecting the eye. Between 2010 and 2020, employment is expected to grow 33%. Most optometrists are in general practice, but some specialize or enter education/research. In order to receive a Doctor of Optometry (OD), an individual must successfully complete a four-year accredited degree program at one of the schools or colleges of optometry. Most students accepted by a school or college of optometry have completed an undergraduate degree. However, each institution has its own undergraduate prerequisites, so applicants should contact the school or college of their choice for specific requirements.

Accrediting body: **Accreditation Council on Optometric Education (ACOE) – American Optometric Association**

Program directory:

[https://myasco.opted.org/searchEngines/admissions\\_advanced\\_search\\_form.aspx](https://myasco.opted.org/searchEngines/admissions_advanced_search_form.aspx)

Important note: There are 2 OD programs in Texas, one at the University of Houston and one at University of the Incarnate Word. See this page for more details on accredited OD programs:

<https://www.aoa.org/optometrists/for-educators/accreditation-council-on-optometric-education/accredited-programs>

## Academics and Prerequisite Courses

Admission to optometry programs vary depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. **Warning! The prerequisites in the table below will NOT suffice for every optometry program in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Life Sciences (20 credit hours)**</b>   |                |  |
|--|----------------|--|
| Biology with Lab                           | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211   |
| Microbiology with Lab                      | 4 credit hours | BIOS 424 and BIOS 318  |
| Advanced Biology                           | 8 credit hours | Any 300+ level BIOS-prefixed courses (cell biology and genetics recommended) |
| <b>Physical Sciences (23 credit hours)</b> |                |  |
| General Chemistry with Lab                 | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154                         |
| Organic Chemistry with Lab                 | 4 credit hours | CHEM 211 and 215   |
| Biochemistry                               | 3 credit hours | BIOS 301   |
| Physics                                    | 8 credit hours | PHYS 101/103 and 102/104 OR PHYS 125 and 126                                 |
| <b>Other (9 credit hours)</b>              |                |  |
| Calculus                                   | 3 credit hours | MATH 101   |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315   |
| Psychology                                 | 3 credit hours | PSYC 101 or higher   |

|         |                |                  |
|---------|----------------|------------------|
| English | 6 credit hours | Any ENGL courses |
|---------|----------------|------------------|

\*\*Anatomy and Physiology are commonly required prerequisites as well. KINE 300/301 may suffice, but taking a combined anatomy and physiology lecture + lab at another university may be needed.

To provide you an example, below is the coursework needed for admission to the OD program at the University of Houston.

|  |                |  |
|--|----------------|--|
| <b>Life Sciences (24 credit hours)</b>     |                |  |
| Biology with Lab                           | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211   |
| Microbiology with Lab                      | 4 credit hours | BIOS 424 and BIOS 318  |
| Human Physiology                           | 4 credit hours | KINE 301; <i>lab may be taken outside of Rice</i>                            |
| Advanced Biology                           | 8 credit hours | Any 300+ level BIOS-prefixed courses (cell biology and genetics recommended) |
| <b>Physical Sciences (23 credit hours)</b> |                |  |
| General Chemistry with Lab                 | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154                         |
| Organic Chemistry with Lab                 | 4 credit hours | CHEM 211 and 215   |
| Biochemistry                               | 3 credit hours | BIOS 301   |
| Physics                                    | 8 credit hours | PHYS 101/103 and 102/104 OR PHYS 125 and 126                                 |
| <b>Other (9 credit hours)</b>              |                |  |
| Calculus                                   | 3 credit hours | MATH 101   |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315   |
| Psychology                                 | 3 credit hours | PSYC 101   |

Some optometry programs allow for students to be admitted without a bachelor's degree, usually with 90 credit hours completed. If you are interested in attempting to gain admission without a bachelor's degree, check with all schools you plan to apply to for additional requirements. Preference is often given to those with bachelor's degrees. We recommend you complete your bachelor's degree at Rice before matriculating to optometry school.

## Standardized Test

The standardized test for optometry school is the Optometry Admission Test (OAT). The OAT is administered throughout the year by Prometric testing centers. The test covers four main areas: natural sciences, physics, reading comprehension, and quantitative reasoning.

Natural sciences includes biology, general chemistry, and organic chemistry, and the quantitative reasoning section includes both non-calculus and calculus-based mathematical problems and applied math word problems.

The test is scored on a scale of 200 to 400, with a mean score of 300. Scores are reported in 10 point increments. More information on the exam, including the current year's exam guide, can be found here: <http://www.ada.org/en/oat/guide>

## Co-Curricular Activities

Admission to optometry school is highly competitive, so it will be important to have co-curricular activities that make you stand apart from the crowd. Many schools will want to see some



shadowing or observation experience with an optometrist. Internships and other co-curricular activities will also be important in helping you stand out.

## **Application Process**

Optometry schools use a centralized application service called [OptomCAS](#), and **all** schools and colleges of optometry participate in OptomCAS. The application opens in late June for students wanting to gain admission for the fall term of the following year.

# Pharmacy

Pharmacists are found in a wide variety of settings including hospitals, managed care, public health, armed forces, pharmaceutical industry, government and more. A pharmacist's responsibilities include a range of care for patients, from dispensing medications to monitoring patient health and progress to maximize their response to the medication. Pharmacists also educate consumers and patients on the use of prescriptions and over-the-counter medications, and advise physicians, nurses and other health professionals on drug decisions. To practice pharmacy in the U.S., you must earn a Doctor of Pharmacy (PharmD) degree from an accredited pharmacy institution and pass a state pharmacy licensure exam.

Accrediting body: **Accreditation Council for Pharmacy Education (ACPE)**

Program directory: <https://www.pharmacas.org/school-directory/pharmd-directory>

Important note: There are 9 PharmD programs in Texas. See this page for more details on accredited PharmD programs: <https://www.acpe-accredit.org/pharmd-program-accreditation/>

*Special thanks to **Robyn James, Rice Class of 2016**, for providing insight into the pre-pharmacy track. Robyn matriculated to the University of Texas at Austin College of Pharmacy.*

## Academics and Prerequisite Courses

Admission to graduate programs in pharmacy vary widely depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. Students may matriculate to some PharmD programs without a bachelor's degree, although this often means that they must take additional prerequisite courses. Some schools will accept prerequisite courses done at a community college, but taking the courses at Rice will show much more aptitude for rigor than a community college will. **Warning! The prerequisites in the table below will NOT suffice for every pharmacy program in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Life Sciences (13 credit hours)</b>     |                |   |
|--|----------------|---|
| Biology with Lab                           | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211                                  |
| Anatomy and Physiology with Labs**         | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| Microbiology with Lab                      | 4 credit hours | BIOS 424 and 318  |
| Biochemistry                               | 3 credit hours | BIOS 301  |
| <b>Physical Sciences (20 credit hours)</b> |                |   |
| General Chemistry with Lab                 | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151 and 153                      |
| Organic Chemistry with Lab                 | 8 credit hours | CHEM 211, 212, and 215  |
| Physics                                    | 8 credit hours | PHYS 101/103 OR PHYS 125/126                                      |
| <b>Other (12-20 credit hours)</b>          |                |   |
| Calculus                                   | 3 credit hours | MATH 101  |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315  |
| English                                    | 6 credit hours | Any ENGL-prefixed courses   |

|                 |                |   |
|-----------------|----------------|---|
| Speech          | 3 credit hours | HUMA 201                                    |
| Economics       | 3 credit hours | ECON 100                                    |
| Psychology      | 3 credit hours | PSYC 101 or above                           |
| Social Sciences | 6 credit hours | Any PSYC, SOCI, ANTH, POLI, or ECON courses |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

To provide you an example, below is the coursework needed for admission to the PharmD program at the University of Texas at Austin, assuming you complete a bachelor's degree.

|  |                |  |
|--|----------------|--|
| <b>Life Sciences (13 credit hours)</b>     |                |  |
| Biology (no labs required)                 | 6 credit hours | BIOS 201 and BIOS 202                        |
| Genetics                                   | 3 credit hours | BIOS 344                                     |
| Microbiology with Lab                      | 4 credit hours | BIOS 424 and 318                             |
| <b>Physical Sciences (20 credit hours)</b> |                |  |
| General Chemistry with Lab                 | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151 and 153 |
| Organic Chemistry with Lab                 | 8 credit hours | CHEM 211, 212, and 215                       |
| Physics                                    | 4 credit hours | PHYS 101/103 or PHYS 125                     |
| <b>Other (12-20 credit hours)</b>          |                |  |
| Calculus                                   | 3 credit hours | MATH 101                                     |
| Statistics                                 | 3 credit hours | STAT 280, 305, 310, or 315                   |
| Composition/Writing                        | 3 credit hours | ENGL 103                                     |
| Literature/Reading                         | 3 credit hours | ENGL 200, 210, 211, 260, or 270              |
| Foreign Language*                          | 2 semesters    | Any foreign language at any level            |

\*Students can be exempt from foreign language if 2 years of a single language was completed in high school.

## Standardized Test

The standardized test for pharmacy school is the Pharmacy College Admission Test (PCAT). The Pharmacy College Admission Test (PCAT), is a specialized test that helps identify qualified applicants to pharmacy colleges. It measures general academic ability and scientific knowledge necessary for the commencement of pharmaceutical education. The PCAT is constructed specifically for colleges of pharmacy. The test covers four main areas: biology, chemical processes, critical reading, quantitative reasoning, and writing.

More information on the exam can be found here:

<https://www.pearsonassessments.com/graduate-admissions/pcat/about.html>

## Co-Curricular Activities

**From Student, To Student:** *Get experience and be exposed to the inner workings of a pharmacy. You will learn a lot by working in one. There are also many sub-fields within pharmacy, so be open to the variety of settings and specialties that pharmacists may work in.*

Many pharmacy schools will prefer to see some experience with pharmacy in some way on your application. Exploring the field of pharmacy will also be critical for you to decide if it will be a good fit for you. Pharmacy may be retail pharmacy (like CVS, Walgreens, etc.) but it may also be in any other setting as well (for example, in a hospital or clinic). Many pharmacy schools want a letter of recommendation from a

pharmacist, so finding a way to work with one will likely be crucial to a successful application.

## Application Process

Pharmacy uses a centralized application service called the Pharmacy College Application Service ([PharmCAS](#)). Students can apply to multiple schools using this service, and the application will open in July for students wishing to matriculate to pharmacy school in the fall term of the following year. Most programs will also require an interview.

# Physical Therapy

Physical therapists, sometimes referred to as simply PTs, are healthcare professionals who diagnose and treat individuals of all ages, from newborns to the very oldest, who have medical problems or other health-related conditions, illnesses, or injuries that limits their abilities to move and perform functional activities as well as they would like in their daily lives. Physical therapists examine each individual and develop a plan using treatment techniques to promote the ability to move, reduce pain, restore function, and prevent disability. In addition, PTs work with individuals to prevent the loss of mobility before it occurs by developing fitness and wellness-oriented programs for healthier and more active lifestyles.

**Accrediting body:** Commission on Accreditation of Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA)

Program directory: <https://ptcasdirectory.apta.org/39/List-of-PTCAS-Programs>

**Important note:** There are 15 institutions that have Doctor of Physical Therapy programs in Texas. See this page for more details on accredited programs:  
<http://aptaapps.apta.org/accreditedschoolsdirectory/captedirectory.aspx?UniqueKey=>

## Academics and Prerequisite Courses

Admission to physical therapy programs vary depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. **Warning! The prerequisites in the table below will NOT suffice for every physical therapy program in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Life Sciences (16 credit hours)</b>                 |                |   |
|--|----------------|---|
| Anatomy and Physiology with Labs**                     | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| Biology with Lab                                       | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211                                  |
| <b>Physical Sciences (16 credit hours)</b>             |                |   |
| Chemistry with Lab                                     | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154              |
| Physics  | 8 credit hours | PHYS 101/103 and 102/104 OR PHYS 125 and 126                      |
| <b>Other (13 credit hours)</b>                         |                |   |
| Statistics   | 3 credit hours | STAT 280, 305, 310, or 315  |
| Psychology   | 3 credit hours | PSYC 101  |
| Developmental Psychology                               | 3 credit hours | PSYC 321  |
| Sociology, Social Psychology, or Cultural Anthropology | 3 credit hours | SOCI 101 OR PSYC 202 OR ANTH 201                                  |
| English Composition                                    | 6 credit hours | Any ENGL courses  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

To provide you an example, below is the coursework needed for admission to the Doctor of Physical Therapy program at the University of Texas Health Science Center at San Antonio.

| <b>Life Sciences (16 credit hours)</b>                 |                |   |
|--|----------------|---|
| Anatomy and Physiology with Labs**                     | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| Biology with Lab                                       | 4 credit hours | BIOS 201 and 211  |
| Biology with Lab or Upper-Level Biology with Lab       | 4 credit hours | BIOS 202 OR BIOS 300+ lecture and lab                             |
| <b>Physical Sciences (16 credit hours)</b>             |                |   |
| Chemistry with Lab                                     | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154              |
| Physics  | 8 credit hours | PHYS 101/103 and 102/104 OR PHYS 125 and 126                      |
| <b>Other (18 credit hours)</b>                         |                |   |
| Statistics   | 3 credit hours | STAT 280, 305, 310, or 315  |
| Medical Terminology                                    | 3 credit hour  | HEAL 132  |
| Psychology   | 3 credit hours | PSYC 101  |
| Developmental Psychology                               | 3 credit hours | PSYC 321  |
| Sociology, Social Psychology, or Cultural Anthropology | 3 credit hours | SOCI 101 OR PSYC 202 OR ANTH 201                                  |
| Speech   | 3 credit hours | HUMA 201  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

## Standardized Test

Most programs will require the Graduate Record Exam (GRE). See the appendix on the GRE.

## Co-Curricular Activities

Most physical therapy programs will want to see some experience in the field, and some will specify a number of hours that they want to see completed before you apply to the program or before you enter and matriculate. For example, at the University of Texas Health Science Center at San Antonio, the program requires 50 observation hours with physical therapy professionals. Hours like these can be gained through either volunteer work, shadowing, or a paid position working with physical therapists and their patients. Other programs may require more hours, so be ready to spend time logging those hours.

## Application Process

Physical Therapy uses the [PTCAS](#) centralized application service; many schools utilize it but many do not. Be sure to know where you will apply when it is time for you – either through PTCAS, through individual schools' websites, or both. PTCAS opens in late June for students wishing to matriculate the following fall term. Most programs will require an interview.

# Physician Assistant

Physician Assistants (PAs) are health professionals who practice medicine as members of a team with their supervising physicians. PAs deliver a broad range of medical and surgical services to diverse populations in rural and urban settings. As part of their comprehensive responsibilities, PAs conduct physical exams, diagnose and treat illnesses, order and interpret tests, counsel on preventive healthcare, assist in surgery, and prescribe medications. The average PA program takes 26.5 months to complete. The first year generally is composed of classroom studies — the essential medical sciences such as microbiology, anatomy, and physiology — followed by a year of clinical rotations in private practice and institutional settings. Virtually all programs require healthcare experience prior to admission.

Accrediting body: **Accreditation Review Commission on Education for the Physician Assistant (ARC-PA)**

Important note: There are 8 Physician Assistant programs in Texas, plus a U.S. Army Medical Center program. See this page for more details on accredited programs: <http://www.arc-pa.org/accreditation/accredited-programs/>

## Academics and Prerequisite Courses

Admission to physician assistant programs vary depending on the school, so it will be important to research a wide variety of programs that you may be interested in early during your academic career. **Warning! The prerequisites in the table below will NOT suffice for every physician assistant program in the nation as prerequisites vary widely, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.**

| <b>Life Sciences (23 credit hours)</b>                     |                |   |
|--|----------------|---|
| Biology with Lab   | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211                                  |
| Microbiology with Lab                                      | 4 credit hours | BIOS 424 and 318  |
| Anatomy and Physiology with Labs**                         | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| <b>Physical Sciences and Mathematics (14 credit hours)</b> |                |   |
| Mathematics  | 3 credit hours | MATH 101  |
| Statistics   | 3 credit hours | STAT 280, 305, or 310   |
| Organic Chemistry with lab                                 | 8 credit hours | CHEM 211, 212, and 215  |
| Biochemistry   | 3 credit hours | BIOS 301  |
| <b>Other</b>   |                |   |
| Psychology   | 3 credit hours | PSYC 101  |
| Social Sciences  | 6 credit hours | Any PSYC, SOCI, or ANTH courses                                   |
| English  | 6 credit hours | Any ENGL courses  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

To provide you an example, below is the coursework needed for admission to the Master of Physician Assistant Studies program at the University of North Texas Health Science Center in Fort Worth.

|   |                |   |
|---|----------------|---|
| <b>Life Sciences (20 credit hours)</b>                    |                |   |
| Genetics  | 3 credit hours | BIOS 344  |
| Microbiology with Lab                                     | 4 credit hours | BIOS 424 and 318  |
| Anatomy and Physiology with Labs**                        | 8 credit hours | KINE 300 and KINE 301; <i>Labs may be taken outside of Rice**</i> |
| <b>Physical Sciences and Mathematics (4 credit hours)</b> |                |   |
| Organic Chemistry with lab                                | 4 credit hours | CHEM 211 and 215  |
| Statistics  | 3 credit hours | STAT 280, 305, 310, or 315  |
| <b>Other (3 credit hours)</b>                             |                |   |
| Psychology  | 3 credit hours | PSYC 101  |

\*\* You can take all 8 hours elsewhere if you find a community college or university that has lecture and lab integrated into two 4-hour courses.

## Standardized Test

Most programs will require the Graduate Record Exam (GRE). See the appendix on the GRE. Some PA programs are beginning to use the PA-CAT exam as part of admissions. More information on this new exam can be found here: <https://www.pa-cat.com/>.

## Co-Curricular Activities

Many students view the physician assistant track as an alternative to medical school. While it certainly serves as a great second option, the way students prepare for medical school is quite different from the way they would prepare for physician assistant school. PA programs place a high value on healthcare experience. Often, shadowing doctors is insufficient to meet this requirement, but schools vary significantly in what they look for. On one end, some schools prefer “some healthcare experience,” and on the other end, some schools require 2,000 hours of paid experience (i.e. working as a medical assistant full-time for a year). Many programs are somewhere in between.

## Application Process

Physician Assistant programs utilize the Centralized Application Service for Physician Assistants (CASPA); 95% of currently accredited PA programs utilize CASPA. CASPA opens earlier than most other centralized application services. Students may begin applying in late April for matriculation to programs in the fall term of the following year.



# Veterinary Medicine

Veterinarians are medical professionals whose primary responsibility is to protect the health and welfare of animals. They treat injured and sick animals, perform surgery, and provide preventative care. Veterinarians also advise pet or livestock owners regarding appropriate care for animals, diagnose and control animal diseases, and prevent the transmission of animal diseases to people. In addition, some veterinarians deal with wildlife preservation. Others work to ensure a safe food supply by maintaining the health of food animals. Veterinarians work in a variety of settings including small private offices, clinics, and animal hospitals or in larger entities like government agencies, medical research facilities, veterinary colleges, and zoos. Prospective veterinarians must earn a Doctor of Veterinary Medicine (DVM) degree from an accredited college and also obtain a license in order to practice. In 2015, a majority were employed in solo or group practice. Most others were salaried employees of colleges and universities, medical schools, private industry (like research laboratories and pharmaceutical companies) or federal, state, or local government.

Accrediting body: **American Veterinary Medical Association (AVMA)**

Important note: There are only 30 veterinary schools in the US accredited by AVMA (with other AVMA-accredited schools existing in Canada and elsewhere abroad), and the only veterinary school in the state of Texas is currently Texas A&M University, although Texas Tech University will soon be opening a veterinary school in the Texas Panhandle soon. See this page for more details:

<https://www.avma.org/ProfessionalDevelopment/Education/Accreditation/Colleges/Pages/colleges-accredited.aspx>

*Special thanks to **Jenny Groover, Rice Class of 2013**, for creating a Pre-Veterinary Guide and providing insight into the life of a veterinary student. Jenny matriculated to the University of Florida College of Veterinary Medicine.*

## Academics and Prerequisites

Some schools are strict about where you take your upper level courses; they want to see science courses and upper level courses completed at a four-year university and not at a community college. Many schools also place more weight on upper-level science coursework grades than your total GPA. **Warning! These prerequisites will NOT suffice for every veterinary school in the nation, so please visit the schools' websites you are considering applying to in order to get up-to-date detailed prerequisite requirements.** This may also be too many credits for certain applicants only applying to a couple of programs, and some schools will waive some prerequisite requirements if you matriculate with a Bachelor's degree. Again, visit the schools' websites to determine exact course requirements.

| Life Sciences (17 credit hours) |                |                                  |
|---------------------------------|----------------|----------------------------------|
| General Biology with Lab        | 8 credit hours | BIOS 201, BIOS 202, and BIOS 211 |
| Microbiology with Lab           | 4 credit hours | BIOS 424 and BIOS 318            |
| Genetics                        | 3 credit hours | BIOS 344                         |

|   |                |  |
|---|----------------|--|
| Animal Nutrition  | 3 credit hours | <i>Must be taken outside of Rice</i>   |
| <b>Chemical/Physical Sciences (about 30 credit hours)</b> |                |  |
| General Chemistry with Lab                                | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151 and 153   |
| Organic Chemistry with Lab                                | 8 credit hours | CHEM 211, 212, and 215   |
| Biochemistry  | 3 credit hours | BIOS 301   |
| Statistics  | 3 credit hours | STAT 280, 305, 310, or 315   |
| Physics   | 8 credit hours | PHYS 101/103 and 102/104 OR PHYS 125 and 126   |
| Mathematics   | 3 credit hours | MATH 101 or higher   |
| <b>Non-Science (about 18 credit hours)</b>                |                |  |
| Interpersonal or Speech Communications                    | 1 semester     | HUMA 201 or 317  |
| English Composition                                       | 2 semesters    | FWIS, ENGL-prefixed courses  |
| Humanities  | 2 semesters    | 6 credit hours of history, literature, art, music, philosophy, or religion             |
| Social Sciences   | 2 semesters    | 6 credit hours of anthropology, economics, psychology, sociology, or political science |

To provide you an example, below is the coursework needed for admission to the DVM program at Texas A&M University.

|   |                |  |
|---|----------------|--|
| <b>Life Sciences (14 credit hours)</b>              |                |  |
| Biology with Lab                                    | 4 credit hours | BIOS 201 and 211                                     |
| Microbiology with Lab                               | 4 credit hours | BIOS 424 and 318                                     |
| Genetics  | 3 credit hours | BIOS 344   |
| Animal Nutrition                                    | 3 credit hours | <i>Must be taken outside of Rice</i>                 |
| <b>Chemical/Physical Sciences (30 credit hours)</b> |                |  |
| General Chemistry with Lab                          | 8 credit hours | CHEM 121/123 and 122/124 OR CHEM 151/153 and 152/154 |
| Organic Chemistry with Lab                          | 8 credit hours | CHEM 211, 212, and 215                               |
| Biochemistry  | 3 credit hours | BIOS 301   |
| Statistics  | 3 credit hours | STAT 305 or 310                                      |
| Physics   | 8 credit hours | PHYS 125 and 126                                     |
| <b>Non-Science (9 credit hours)</b>                 |                |  |
| Speech Communications                               | 3 credit hours | HUMA 201   |
| English   | 6 credit hours | Any ENGL-prefixed courses                            |

## Standardized Test

Years ago, the Veterinary College Admissions Test (VCAT) was the veterinary standardized test, but today, most schools that require a standardized exam will use the Graduate Record Exam (GRE). See the appendix on the GRE.

Some schools may also require the GRE Biology subject test, but many veterinary schools are now no longer requiring any GRE score or other standardized test score for admission.

## Co-Curricular Activities

### **From Rice Student, To Rice Student:**

*Getting as much shadowing or volunteer time under the supervision of a veterinarian (not just volunteering at an animal shelter) is very important. That introduces you to the industry, which is amazing, but definitely has its challenges. A lot of people think they want to do vet med until they actually experience it in a practice. If they love it and want to go to vet school after spending that time in a practice, then they are prepared to apply.*

Veterinary school is just as competitive as medical school, and for Texas residents, it is highly competitive to gain admission at Texas A&M since it is currently the only public veterinary school in the state of Texas. Significant exposure to the profession will be an important piece of your application, as the advice to the left points out.

It is important to track the number of hours you spend in animal environments. Hours spent volunteering, working, and shadowing fall into either **(1) animal experience hours**, or **(2) veterinary experience hours**. Animal experience hours can include any activity with

animals NOT under the supervision of a veterinarian, such as volunteering at the Humane Society or working with animals at a children's camp. Veterinary experience hours would include helping out at a veterinary clinic or tending to animals at a zoo or other facility with a veterinarian. Certain veterinary schools will require a minimum number of veterinary experience hours to even consider your application, so it is important to begin this early in your career. Many competitive applicants have 500 or 1,000+ hours of animal and veterinary experience at the time they apply.

## Application Process

Veterinary schools use the [Veterinary Medical College Application Service \(VMCAS\)](#). It is a centralized service for all veterinary schools in the country. For students applying to Texas A&M, they may use the Texas Medical and Dental School Application Service (TMDSAS) to apply. VMCAS will open in May for students wishing to matriculate in the fall term of the following year.

Most veterinary schools will require a letter of recommendation from a veterinarian (DVM), so use your time wisely as a Rice student to make real connections with veterinarians, as you will almost certainly need to ask one for a letter of recommendation.

During the veterinary school interview, be prepared to discuss “hot topics” in veterinary medicine. Talking with veterinarians during your shadowing and volunteering will be a great outlet to ask about current issues in the field so that you are prepared for these types of questions.

*The Office of Academic Advising maintains a Google Team Drive for pre-veterinary students at Rice that includes many relevant resources. To be added to this team drive, please email us at [hpa@rice.edu](mailto:hpa@rice.edu).*

## Appendix A: Graduate Record Exam (GRE)

The GRE is the most common standardized test used for admission to graduate programs, so it is no surprise that it is a commonly required exam for admission to many allied health professions programs. The GRE is comprised of 3 sections: quantitative, verbal, and writing. Students may take the GRE at just about any time in a variety of testing locations.

1. Quantitative Reasoning – this is the math portion of the exam, and it covers mathematical concepts that do not require knowledge of calculus. This is important since Rice does not offer math courses lower than calculus. If you need a refresher on pre-calculus, algebra, and geometry, it may be wise to spend some extra time studying for this section using GRE test preparation books and other review materials.
2. Verbal Reasoning – this is the reading portion of the exam, and it covers concepts in reading comprehension, text completion, and vocabulary/sentence equivalence
3. Writing – this section includes two separately timed writing prompts

Overall, the GRE could be likened to a more intensive SAT for students who have taken the SAT for admission to college. Scores for the qualitative and quantitative sections are reported from 130-170, meaning that a student's GRE score will be somewhere between 260 and 340. Scores around 300 generally align with the 50<sup>th</sup> percentile of test takers.

## Appendix B: Personal Statements

Applicants to allied health professions are generally required to submit a personal statement that allows them to distinguish themselves from other applicants. The applicant's passion and commitment to becoming an allied health professional should be evidenced in the essay by academic, clinical, volunteer, work, and personal experiences. The writing process necessitates several rounds of significant revision, so drafting the personal statement should be done before the application period begins so that you have time to edit it. The [Center for Academic and Professional Communication \(CAPC\)](#) at Rice offers workshops and one-on-one consultations to provide students with feedback on their personal statements.

## Appendix C: Interviews

Among the most important aspects of the application process is the interview. The principal goal is to determine if an applicant possesses the necessary attributes outside of academics to succeed in health profession school and clinical practice. Interviewers want to determine an applicant's fit with the school as well. For students, interviews present an opportunity to add a personal dimension to the application, ask questions, and tour the campus. This is also a great opportunity for the applicant to determine if the school is a good fit for them. Take notes to help with your potential decision in the future.

There are different kinds of interviews, such as standard one-on-one interviews, committee interviews, or sometimes multiple mini interviews (MMIs). After identifying the interview format for each school, applicants should take appropriate steps to prepare and practice answering possible interview questions. This includes researching each school and reviewing the materials submitted in their application. Applicants also should be able to converse about current issues and trends related to healthcare and their chosen health profession.

The [Center for Career Development \(CCD\)](#) and [Center for Academic and Professional Communication \(CAPC\)](#) offer mock interviews for students who would like to practice interviewing.

## Appendix D: Other Allied Health Professions

Included in this guide are some of the more popular allied health professions that the OAA sees students pursue at Rice. There are some others listed here for you to consider, as well as some other professions that are not directly in healthcare but still allow for individuals to work with clients on their wellbeing. While the OAA may have limited knowledge of these options, we can still help you with understanding requirements and identifying helpful people and resources.

**Podiatry**

**Chiropractic**

**Audiology**

**Public Health**

**Speech Language Pathology**

**Mental Health Counseling**

**Clinical Psychology**

**Athletic Training**

**Social Work**

**Healthcare Administration**