

# PRE-HEALTH PROFESSIONS PROGRAMS

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The Texas A&M University-Kingsville Pre-Health Professions Advising Office provides information and assistance to prospective, current and former students of Texas A&M University-Kingsville interested in pursuing health-related careers. Services include one-on-one academic, career and admissions advising, information on professional school selection, seminars on various health professions, access to summer enrichment programs and much more. Interested students should contact the Pre-Health Professions Advising Office as early in their academic careers as possible to take full advantage of the myriad of opportunities available.

## Programs and Majors

Although a student may major in any field and if qualified, be accepted into a health professional school, the Bachelor of Science degree in either Biomedical Science or Biology from Texas A&M University-Kingsville provides for the vast majority of prerequisite courses for the following graduate degree programs:

- Medicine (M.D.)
- Doctor of Osteopathic Medicine (D.O.)
- Dentistry (D.D.S.)
- Doctor of Pharmacy (Pharm.D.)
- Physical Therapy (D.P.T.)
- Occupational Therapy (O.T.D.)
- Physician Assistant (P.A.)
- Doctor of Chiropractic (D.C.)
- Doctor of Optometry (O.D.)

Texas A&M University-Kingsville also offers the prerequisite courses for several undergraduate, pre-health professions degrees available at other South Texas institutions such as:

- Nursing (B.S.N.)
- Associate Degree in Nursing (A.D.N.)
- Clinical Laboratory Sciences
- Physical Therapy Assistant (P.T.A.)
- Occupational Therapy Assistant (O.T.A.)
- Radiology Technician (C.R.T.)
- Dental Hygiene
- Respiratory Care Therapist

And many other allied health fields.

## Early Admissions Programs

### Dental School Early Admissions Programs

Texas A&M University-Kingsville offers 3+4 Early Admissions Programs in dentistry with University of Texas Health Science Center-San Antonio Dental School, Texas A&M University System Health Science Center-Baylor College of Dentistry and University of Texas Health Science Center at Houston Dental Branch. These programs provide early acceptance to dental school for qualified students during the spring semester of their freshman year and are called 3+4 because students typically spend three years at Texas A&M University-Kingsville meeting the basic degree requirements and then spend the required four years in dental training. Students who complete the program will receive a B.S. from Texas A&M University-Kingsville and a D.D.S. from one of the Texas Dental Schools in seven rather than eight years. The requirements for each of these programs are unique to each institution. Interested students should contact the Pre-Health Professions Adviser for specific information.

### Partnership for Primary Care (PPC)

Texas A&M University System Health Science Center Partnership for Primary Care Program Webpage (<https://medicine.tamhsc.edu/admissions/special-programs/ppc>)

The Partnership for Primary Care Program is available for qualified students. Texas A&M University System Health Science Center-College of Medicine will award Texas A&M University-Kingsville students early acceptance into its medical school prior to the start of the undergraduate freshman year or at the end of the undergraduate freshman year provided:

- the student's legal residence is in a federally-recognized, medically underserved region in the State of Texas,
- the student graduates in the top 10% of his/her high school graduating class,
- the student earns a minimum high school grade point average of a 3.5 on a 4.0 scale,
- the student scores a 1200 SAT or 26 ACT,
- the student demonstrates commitment to the medical profession
- and the student maintains a 3.5 or better college grade point average each year of enrollment at Texas A&M University-Kingsville.

### **Joint Admission Medical Program (JAMP)**

<http://www.utsystem.edu/jamp/>

The Joint Admission Medical Program (JAMP) provides services to support and encourage **highly qualified economically disadvantaged students** pursuing a medical education. Students selected from JAMP will receive undergraduate and graduate scholarships and summer stipends; JAMP also guarantees the admission of those students who are qualified to a participating Texas medical school provided they satisfactorily complete all program requirements (See Pre-Health Professions Adviser for specific regulations). Qualified students must meet the following criteria:

- be a Texas resident
- apply for admission to one of the participating universities and enter college as a first-time freshman immediately following graduation from high school,
- take the SAT or ACT and earn a score not less than the mean for the State of Texas and provide the scores to the participating university,
- complete and submit the FASFA and be eligible to receive a Pell Grant in the student's freshman year of college and
- complete 30 hours of undergraduate credit during the fall and spring semester of his/her freshman year with a 3.25 GPA or higher (no more than 3 hours of AP credit can be counted toward this requirement).

### **Summer Enrichment Programs**

Various summer enrichment programs designed to facilitate and enhance the students' entry into professional school are available to Texas A&M University-Kingsville students. These programs provide stipends, academic enrichment, clinical experience, admissions counseling, rigorous standardized entrance exam preparation and the opportunity for the professional school faculty and staff to become familiar with their particular strengths well in advance of their application. A sample of the available programs typically attended by pre-health professions students include:

- The University of Texas Medical Branch/UT Pan American Academic Enrichment Program
- The University of Texas Medical Branch Medical School Familiarization Program
- Minority Medical Education Program
- Texas A&M University System Health Science Center-College of Medicine Bridge to Medicine MCAT Preparatory Program
- The University of Texas-Houston Health Science Center Medical School Summer Enrichment Program
- Baylor College of Medicine Honors Premedical Academy
- Johns Hopkins University School of Medicine Human Anatomy Course for Undergraduates
- The University of Texas Health Science Center-San Antonio Dental School Summer Dental Research Program
- Texas A&M University System Health Science Center-Baylor College of Dentistry Pre-Dental Summer Enrichment Program
- The University of Texas Dental Branch at Houston Summer Enrichment Program
- Texas Tech University Health Sciences Center Rural Pre-Health Professional Summer Academy

### **Required Course Prerequisites for Medical and Dental Schools in Texas**

In addition to the General Educational and Specific Degree Requirements as the vast majority of students accepted to medical and dental school earn a baccalaureate degree prior to acceptance, the following courses represent the minimum requirements for acceptance as declared by the medical and dental schools in Texas. However, numerous additional courses and nonacademic activities are just as critical to be a successful pre-medical or pre-dental student. Frequent consultation with the Pre-Health Professions Adviser is very important. The Medical College Admissions Test (MCAT) and Dental Admissions Test (DAT) are also required for medicine and dentistry, respectively.

**NOTE:** Graduate schools in medicine and dentistry differ greatly in their entrance requirements. After deciding on a school or schools, the student should write to the Director of Admissions for the latest catalog and follow the program outlined as nearly as possible.

<b>Biology Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
<b>Required</b>		
BIOL 1306 & BIOL 1106	General Biology I and General Biology Laboratory I	4
BIOL 1307 & BIOL 1107	General Biology II and General Biology Laboratory II	4
Adv. BIOL		6
<b>Strongly Recommended</b>		
BIOL 2401	Human Anatomy and Physiol	
BIOL 2402	Human Anat and Physiology II	
BIOL 3408	Animal Physiology	
BIOL 4401	Molecular Biology	
BIOL 4402	Vertebrate Embryology	
BIOL 4406	Bacteriology	
BIOL 4408	Immunology	
BIOL 4426	Cellular Physiology	
Total Semester Credit Hours		14

<b>Chemistry Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
<b>Required</b>		
CHEM 1311 & CHEM 1111	Gen Inorganic Chemistry I and Gen Inorganic Chem Lab I	4
CHEM 1312 & CHEM 1112	Gen Inorganic Chemistry II and Gen Inorganic Chem Lab II	4
CHEM 3323 & CHEM 3123	Organic Chemistry I and Organic Chemistry Lab I	4
CHEM 3325 & CHEM 3125	Organic Chemistry II and Organic Chemistry Lab II	4
<b>Strongly Recommended</b>		
CHEM 4341	Biochemistry I <sup>1</sup>	
CHEM 4342	Biochemistry II	
CHEM 4341	Biochemistry I <sup>1</sup>	
Total Semester Credit Hours		16

<sup>1</sup> Required for Dental School.

<b>English Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
ENGL 1301	Rhetoric and Composition	3
ENGL 1302	Rhetoric and Composition	3
Total Semester Credit Hours		6

Courses in literature strongly recommended.

**Mathematics**  
(not required for Dental School)

Code	Title	Semester Credit Hours
MATH 2413	Calculus I <sup>1</sup>	4
Total Semester Credit Hours		4

<sup>1</sup> May require completion of MATH 1314, MATH 1316, MATH 1348 if student has not earned CLEP or AP credit.

### Physics

Code	Title	Semester Credit Hours
Select 2 of the following:		8
PHYS 1301 & PHYS 1101	College Physics I and Coll Physics I Laboratory	
PHYS 2325 & PHYS 2125	University Physics I and University Physics I Lab	
PHYS 1302 & PHYS 1102	College Physics II and College Physics II Lab	
PHYS 2326 & PHYS 2126	University Physics II and University Physics II Lab	
Total Semester Credit Hours		8

### Math-based Statistics

Code	Title	Semester Credit Hours
STAT 4301	Biostatistics	3
Total Semester Credit Hours		3

### Pre-Pharmacy Generic Curriculum

The Pre-Pharmacy Curriculum consists of at least two years of college credit; however, the number of students gaining acceptance to pharmacy school that complete at least three years of college or a baccalaureate degree prior to entry is growing rapidly as the general applicant pool becomes more competitive every year. The following courses represent the combined minimum requirements for acceptance as declared by pharmacy schools in Texas. Students are encouraged to complete the prerequisites to apply to all pharmacy schools in Texas in order to increase their overall chances of acceptance. However, students should consult with the Pre-Health Professions Adviser for requirements specific to each school. The applicant will be evaluated on the quality of overall academic performance, letters of recommendation and interviews. The Pharmacy College Admission Test (PCAT) is also required.

*Note: Students attending institutions other than Texas A&M University-Kingsville for their undergraduate studies that wish to apply for admission to the Texas A&M Health Science Center Irma Lerma Rangel College of Pharmacy should consult with the School of Pharmacy staff and the Pre-Health Professions Adviser at their parent institution for the specific courses at that institution that meet the prerequisites specific to the Texas A&M Health Science Center Irma Lerma Rangel College of Pharmacy.*

### Biology

Code	Title	Semester Credit Hours
<b>Required</b>		
BIOL 1306 & BIOL 1106	General Biology I and General Biology Laboratory I	4
BIOL 1307 & BIOL 1107	General Biology II and General Biology Laboratory II	4
BIOL 2421	Elementary Microbiology	4
BIOL 3402	Genetics	4
<b>Recommended</b>		
BIOL 2401	Human Anatomy and Physiol	
BIOL 2402	Human Anat and Physiology II	
BIOL 3408	Animal Physiology	

BIOL 4406	Bacteriology	
BIOL 4408	Immunology	
BIOL 4426	Cellular Physiology	
Total Semester Credit Hours		16

Hours vary depending on the specific pharmacy college.

### Chemistry

Chemistry Code	Title	Semester Credit Hours
<b>Required</b>		
CHEM 1311 & CHEM 1111	Gen Inorganic Chemistry I and Gen Inorganic Chem Lab I	4
CHEM 1312 & CHEM 1112	Gen Inorganic Chemistry II and Gen Inorganic Chem Lab II	4
CHEM 3323 & CHEM 3123	Organic Chemistry I and Organic Chemistry Lab I	4
CHEM 3325 & CHEM 3125	Organic Chemistry II and Organic Chemistry Lab II	4
<b>Recommended</b>		
CHEM 4341	Biochemistry I	
CHEM 4342	Biochemistry II	
Total Semester Credit Hours		16

### Physics

Physics Code	Title	Semester Credit Hours
Select one of the following:		
PHYS 1301 & PHYS 1101	College Physics I and Coll Physics I Laboratory	4
PHYS 2325 & PHYS 2125	University Physics I and University Physics I Lab	
Total Semester Credit Hours		4

Hours vary depending on the specific pharmacy college.

### Mathematics

Mathematics Code	Title	Semester Credit Hours
MATH 2413	Calculus I <sup>1</sup>	4
Total Semester Credit Hours		4

<sup>1</sup> May require completion of MATH 1314, MATH 1316, MATH 1348 if student has not earned CLEP or AP credit.

### Statistics

Statistics Code	Title	Semester Credit Hours
STAT 1342	Elementary Statistics	3
Total Semester Credit Hours		3

**English**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
ENGL 1301	Rhetoric and Composition	3
ENGL 1302	Rhetoric and Composition	3
ENGL 2342 or ENGL 2362	Introduction to Literature Read in Short Story and Drama	3
Total Semester Credit Hours		9

Hours vary depending on the specific pharmacy college.

**History**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
HIST 1301	American History to 1877	3
HIST 1302	American History since 1877	3
Total Semester Credit Hours		6

**Political Science**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
POLS 2301	Government and Politics of US	3
POLS 2302	Government and Politics of TX	3
Total Semester Credit Hours		6

**Social/Behavioral Science**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
Select 1 of the following:		3
PSYC 2301	Introd to Psychology	
SOCI 1301	Principles of Sociology	
ECON 2301	Principles of Macroeconomics	
Total Semester Credit Hours		3

Hours vary depending on the specific pharmacy college.

**Visual/Performing Arts**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
Examples of; not inclusive:		3
ARTS		
ARTS 2301 or MUSI 2301 or THEA 2301	Structure of the Arts Structure of the Arts Structure of the Arts	
ARTS 1303	Art History I	
ARTS 1304	Art History II (Or any 3 hour lab or studio course from ARTS, MUSI or THEA.)	
Total Semester Credit Hours		3

Hours vary depending on the specific pharmacy college.

**Communications**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
COMS 1311 or COMS 1315	Intro to Oral Communication Bus and Professional Comm	3
Total Semester Credit Hours		3

**Pre-Optometry, Pre-Physical Therapy, Pre-Occupational Therapy, Pre-Physician Assistant, Pre-Clinical Lab Sciences Generic Curriculum**

Students interested in the careers listed above must complete the General Education Requirements in addition to the following courses. However, there are variations in those requirements for each institution offering the respective graduate degrees. The listing below itemizes only the common courses required of all four careers listed in this section. Additional courses and nonacademic activities are just as critical in order to be successful. Therefore, frequent consultation with the Pre-Health Professions Adviser is very important. The Optometry Admissions Test (OAT) is required for optometry school. The Graduate Record Examination (GRE) is required for physical therapy, occupational therapy and physician assistant schools.

**Biology**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
BIOL 1306 & BIOL 1106	General Biology I and General Biology Laboratory I	4
BIOL 1307 & BIOL 1107	General Biology II and General Biology Laboratory II	4
BIOL 2401	Human Anatomy and Physiol	4
BIOL 2402	Human Anat and Physiology II	4
BIOL 2421	Elementary Microbiology (Not required for Physical or Occupational Therapy.)	4
Total Semester Credit Hours		20

Hours and specific courses vary depending on the specific program.

**Chemistry**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
CHEM 1311 & CHEM 1111	Gen Inorganic Chemistry I and Gen Inorganic Chem Lab I	4
CHEM 1312 & CHEM 1112	Gen Inorganic Chemistry II and Gen Inorganic Chem Lab II	4
CHEM 3323 & CHEM 3123	Organic Chemistry I and Organic Chemistry Lab I	4
<b>Required for Optometry</b>		
CHEM 3325 & CHEM 3125	Organic Chemistry II and Organic Chemistry Lab II	
CHEM 4341	Biochemistry I	
Total Semester Credit Hours		12

**Physics**

<b>Code</b>	<b>Title</b>	<b>Semester Credit Hours</b>
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**Not required for Physician Assistants**

Select 2 of the following:		8
PHYS 1301 & PHYS 1101	College Physics I and Coll Physics I Laboratory	
PHYS 2325 & PHYS 2125	University Physics I and University Physics I Lab	
PHYS 1302 & PHYS 1102	College Physics II and College Physics II Lab	

PHYS 2326 & PHYS 2126	University Physics II and University Physics II Lab	
Total Semester Credit Hours		8

**Additional Mathematics**

Code	Title	Semester Credit Hours
<i>Only required for Optometry</i>		
MATH 2413	Calculus I <sup>1</sup>	4
Total Semester Credit Hours		4

<sup>1</sup> May require completion of MATH 1314, MATH 1316, MATH 1348 if student has not earned CLEP or AP credit.

**Statistics**

Code	Title	Semester Credit Hours
STAT 1342	Elementary Statistics	3
Total Semester Credit Hours		3

**Additional English**

Code	Title	Semester Credit Hours
<b>Only required for Physical Therapy</b>		
ENGL 2314	Technical Writing	3
Total Semester Credit Hours		3

A Medical Terminology course may also be required for some graduate schools (usually available as an Internet course from various institutions).

**Psychology**

Code	Title	Semester Credit Hours
Select 1-3 of the following:		
PSYC 2301	Introd to Psychology	3-9
PSYC 4315	Sel Topics in Psychology (TOPIC: Developmental Psychology)	
One additional advanced PSYC		
Total Semester Credit Hours		3-9

Hours and specific courses vary depending on the specific program.

**Sociology**

Code	Title	Semester Credit Hours
SOCI 1301	Principles of Sociology	3
Total Semester Credit Hours		3

Hours and specific courses vary depending on the specific program.

**Pre-Nursing Generic Curriculum**

The curriculum for a nursing degree depends on whether a student is interested in applying to a two-year nursing program (Associate Degree in Nursing) or a four-year nursing program (Bachelor of Science in Nursing). Students interested in pursuing a two-year degree in nursing are not required to complete the general education courses, though it is recommended. Schools of nursing differ greatly in their entrance requirements. After deciding on a school or schools, the student should write to the Director of Admissions for the latest catalog and follow the program outlined as nearly as possible. Students should consult the Pre-Health Professions Adviser for specific course programs.