

## **Programs for Pre-Dentistry, Pre-Medicine, Pre-Optometry, Pre-Physical Therapy, Pre-Veterinary, Pre-Pharmacy (Updated July 2022)**

Below is the pre-admission course work required for acceptance into the various professional schools. Students interested in one of these areas must confer with an advisor for their area of interest, the two most common being Biology or Chemistry. Admission to professional schools almost always requires a four year degree, therefore your advisor should be a faculty member in the area in which you will major. Students should study carefully the admission requirements posted on their preferred profession school's website, as requirements change occasionally.

### **Pre-Dental Hygiene**

Most HSU pre-dental hygiene students apply to and enter the University of Arkansas for Medical Sciences. The course requirements for application to this school are given below. Other dental hygiene associate programs could have additional or different requirements.

- 14 hrs Biology Introduction to Biology (with lab) or Zoology and Microbiology with labs, and Human Anatomy and Physiology I and II (non-majors acceptable)
- 4 hrs Chemistry General Chemistry
- 3 hrs Math College Algebra
- 6 hrs English English A and English B
- 3 hrs History U.S. History to 1877 or U.S. History since 1877 or American National Government 3 hrs Speech Oral Communication
- 3 hrs Psychology Gen. Psychology
- 3 hrs Sociology Introduction to Sociology
- 3 hrs Humanities World Literature I or II, or Intro to Philosophy
- 6 hrs Electives must be 3000-4000 level
- 3 hrs Fine Arts Humanities music, theatre, etc.

### **Pre-Dentistry**

Most HSU pre-dental students apply to and attend the University of Tennessee's College of Dentistry. The course requirements for application to this school are given below. Other dental schools could have additional or different requirements.

- 8 hrs Biology General Zoology and General Botany with labs
- 19 hrs Chemistry Univ. Chemistry I & II, Organic Chemistry I & II with labs, and Biochemistry I 6 hrs English English A and English B
- 8 hrs Physics Gen. Physics I & II or Univ. Physics I & II with labs
- 3 to 4 hrs Other biology: Histology, Microbiology, or Comparative Anatomy with labs

Recommended electives include Genetics, Comparative Anatomy, Cell Biology, Histology, Microbiology, and Physiology.

### **Pre-Medical**

Most HSU pre-medical students apply to and attend the University of Arkansas for Medical Sciences College of Medicine. The course requirements for application to this school are given below. Other medical schools could have additional or different requirements.

- Two semesters of Biology
- Three semesters of Chemistry (to include Organic Chemistry with lab, and Biochemistry)
- One semester of Genetics
- Two semesters of Physics
- Two semesters of English
- One semester of Statistics
- Two semesters of Social Sciences (General Psychology and Introduction to Sociology are strongly recommended)

Strongly recommended courses are in the area of Biology: General Zoology, Human Anatomy and Physiology, Histology, Cell Biology. It is imperative that students interested in this field consult regularly with their program pre-medial advisor.

### **Pre-Optometry**

Most HSU pre-optometry students apply to and attend the Southern College of Optometry. The course requirements for application to this school are given below. Other optometry schools could have additional or different requirements.

12 hrs Biology General Zoology, General Botany and Microbiology with labs  
 19 hrs Chemistry Univ. Chemistry I & II, Organic Chemistry I & II, and Biochemistry  
 6 hrs English English A and English B  
 8 hrs Physics Gen. Physics I & II or Univ. Physics I & II with labs  
 8 hrs Math Calculus I and Statistics  
 3 hrs Psychology General Psychology  
 6 hrs Social Science Sociology, Psychology, History, Political Science, Philosophy, Geography, etc.

### **Pre-Physical Therapy**

Most HSU pre-physical therapy students apply to and enter the physical therapy program at the University of Central Arkansas. The course requirements for application to this school are given below. Other physical therapy programs could have additional or different requirements.

16 hrs Biology General Zoology, Human Anatomy and Physiology I & II, and one 2000 or higher level animal based course  
 8 hrs Chemistry Univ. Chemistry I & II or Gen. Chemistry and Gen. Organic & Biochemistry with labs 8 hrs  
 Physics Gen. Physics I & II with labs  
 3 hrs Psychology Gen. Psychology  
 3 hrs Statistics Statistics or Experimental Statistics or Statistical Methods

### **Pre-Veterinary**

Most HSU pre-veterinary students apply to and attend the Louisiana State University's School of Veterinary Medicine. The course requirements for application to this school are given below. Other veterinary schools could have additional or different requirements.

12 hrs Biology General Zoology, Microbiology and an upper level biology  
 19 hrs Chemistry Univ. Chemistry I & II, Organic Chemistry I & II, and Biochemistry  
 6 hrs English English A and English B  
 8 hrs Physics Gen. Physics I & II or Univ. Physics I & II

6 hrs Math College Algebra or Pre-Calculus, and Trigonometry

### **Pre-Pharmacy**

Below are the courses required for acceptance into the College of Pharmacy at the University of Arkansas for Medical Sciences. Other pharmacy schools could have additional or different requirements. UAMS requires a total of 61 hours. Humanities electives (humanities, literature, social sciences, history) are taken to complete the required 61 hours. Consult with a pre-pharmacy advisor for options and curriculum requirements for other pharmacy schools. The Biology and Chemistry department and the UAMS College of Pharmacy recommend that students earn their four-year degree before entering pharmacy school. Acceptance into a professional school is not guaranteed therefore it is wise to work toward a four-year degree as you take these courses.

### **Core Courses**

3 hrs Math MTH 1243 College Algebra  
16 hrs Chemistry CHM 1014/CHM 1024 University Chemistry I & II and labs  
CHM 3063/CHM 3051 Organic Chemistry I and lab and  
CHM 3073/CHM 3131 Organic Chemistry II and lab  
12 hrs Biology BIO 2114 General Zoology and lab  
BIO 2014 General Botany and lab  
BIO 2094 Microbiology and lab

### **Non-core Courses**

6 hrs English ENG 1463/ENG 1473 Freshman English A & B  
3 hrs Business ECO 2013 Microeconomics **Or** ECO 2023 Macroeconomics  
**Or** ACC 2013 Principles of Accounting  
3 hrs Statistics STA1313 Statistical Reasoning or STA2323 Statistical Methods  
3 hrs Oral Com COM 2013 Oral Communications  
3 hrs Psychology PSY 1013 General Psychology  
3 hrs Humanities Choose from world cultures or history, anthropology, sociology, or foreign language 9 hrs  
recommend Electives:  
CHM 2084 Quantitative Analysis  
MTH 1294 Calculus I  
PHY 2034 General Physics I and lab  
ENG 2133 Critical Thinking  
BIO 3054 Genetics and lab  
BIO 4214 Cell Biology and lab  
CHM 4173 Medicinal Chemistry  
CHM 4283 Biochemistry I  
PHI 2133 Logic  
BIO 2174 or 3544 Anatomy and Physiology (non-major or major)  
CHM 3403 Physical chemistry for Life Sciences

Additional Biology and Chemistry electives are recommended for all pre-professional students. The number and names of these biology and chemistry courses depend upon the student's major. Most students who choose one of these professions are either biology or chemistry majors. It would be best for a student to seek advice from the program in which they intend to major.