SHPEP is a national program funded by the Robert Wood Johnson Foundation with direction and technical assistance provided by the Association of American Medical Colleges and the American Dental Education Association.

The SHPEP is a free (full tuition, housing, and meals) six-week summer health professions college preparatory program that offers eligible students intensive and personalized preparation for application to, and matriculation in, health professional school.

Academic Programs
Academic Programs

Core Curriculum

The core academic curriculum will have courses in organic chemistry, physics (for those interested in medical and dental careers), anatomy and physiology, microbiology, statistics and fundamentals of public health (for those interested in public health and nursing careers). Lab experience in the human anatomy facility at the medical school will be offered through the six-week experience. Examples of the topics covered in the core curriculum are listed below.

Organic Chemistry

Organic chemistry is a specific discipline within chemistry which involves the scientific study of the structure, properties, composition, reactions, and preparation (by synthesis or by other means) of chemical compounds consisting primarily of carbon and hydrogen. Class time will be a mix of lecture and group work to aid in the understanding of key concepts. Homework assignments will reinforce and develop the ideas discussed in class.

Physics

This course will provide students with an introduction to some of the key concepts in physics, such as motion, force, heat, fluids, and waves. An emphasis will be placed on how the physical principles apply to the mechanics of the human body. Class time will consist of a combination of lecture, demonstrations, and hands-on group work. Homework assignments will reinforce and develop the ideas discussed in class.

Microbiology

This course will serve as a general introduction to pathologies caused by microorganisms from the perspective of etiologic agents, symptoms, prevention, and treatment. Interactive lectures will provide theoretical background for diagnosis of real-world case studies in general medicine and dentistry.

Anatomy and Physiology (A&P)

The lecture portion of A&P emphasizes problem solving with clinical situations that involve anatomical terminology, homeostatic mechanisms and pathologies associated with the skeletal, muscular and nervous systems. The lab portion includes hands-on gross anatomy lab experiences with bones, joints, muscles, brains and other internal organs.

Statistics

Statistics is the study of research outcomes. Over the six weeks, you will be introduced to the concepts that are used in reporting the results of research. Even if you will not be producing research in your practice, you will likely be reading the results of others' research. An understanding of statistics is essential if you want to read the reports in academic journals. Class time will be a mix of lecture and group work. Homework assignments will reinforce and develop critical thinking based on the ideas learned in class.

• Calculator Requirement for Statistics Course
Accepted scholars are required to bring a statistics-friendly calculator for the Statistics course: Texas Instruments 83+ or 84. Specs/features and user guide may be accessed by clicking on the following links:

- TI-83 Plus
- TI-84 Plus Silver Edition
- Guide for TI-83, TI-83 Plus, or TI-84 Plus Graphing Calculator

**Fundamentals of Public Health**

The Centers for Disease Control defines public health as “the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases. Overall, public health is concerned with protecting the health of entire populations.” (www.cdcfoundation.org) This course will provide an introduction to each of the core disciplines of public health, as well as some of the areas that span the health disciplines of nursing, medicine and dentistry. Class time will be a combination of lectures, discussions, and demonstrations.

**Academic Enrichment and Professional Development Curriculum**

The UTHealth SHPEP leaders recognize that the skills of well-rounded health professions students and health care providers go beyond competency in basic sciences. Changes in US demographics and issues of access to care create the need for individuals able to work across cultures. New models of health care delivery, such accountable care organizations, create the need for individuals with the leadership skills to make these new models a successful part of our health care culture. As we create a culture of health, those within the professions must understand the broad definitions of individual and collective community wellness and engage in practices that promote both. And finally, as we move towards patient centered, team-based care, having individuals who understand, value and work towards the goal of interprofessional education and practice is essential for these models to be effective. Our Academic Enrichment and Professional Development curricula will help prepare students in these areas and serve to augment the Basic Sciences curriculum. Examples of topics to be covered are listed below.

**Health Policy**

Health Policy is the study to improve health systems to meet their objectives in terms of health outcomes, financial protection and responsiveness to the population's legitimate expectations. This six-week educational experience will focus on key principles in policy making and health policy and exposure to critical health care issues.

**Professionalism and Cultural Competency**

Scholars will experience special topics in humanism, professionalism, ethics and cultural competency. These topics will be introduced by highly regarded faculty with known expertise in these areas.

**Communication Skills**

Small-group experiences in the Art of Communication course will help develop communication skills relevant to health professionals. Scholars also will prepare for health professions school interviews by working on mock interviews with the tutors.

**Clinical Exposure**

Scholars will experience limited clinical exposure through a diverse range of settings including shadowing individual clinicians, small-group clinical rotations and full-group seminars with highly experienced and expert clinicians.

**Learning Skills Development**
Emphasis is placed on developing learning strategies to be a successful student in professional school. Topics may include strategies to improve study habits, note-taking strategies, test-taking skills, time management, and use of information resources (library and Web).

**Financial Planning**

A nationally recognized expert in financial planning will work with the scholars to assist them in developing individualized career plans and in implementing financial management strategies.