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TEXAS TECH UNIVERSITY
College of Human Sciences

Nutrition & Metabolic
Health Initiative

HIGH SCHOOL EXPERIENCE

ABOUT THE HIGH SCHOOL EXPERIENCE

The NMHI High School Experience is a program for teens which provides a glimpse of careers in healthcare, nutrition, and working with various lifestyle-associated diseases. This unique program aims to inform students about the complexity of medical diseases and how multidisciplinary care teams work.



The NMHI High School Experience will offer one session in 2024, July 15-19. Students will meet Monday through Friday, 9:00 am to 3:00 pm.

Each day of the NMHI High School Experience will be broken up into sessions and will include a mix of presentations and practical application.

Ages: The NMHI High School Experience is for students going into grades 9 through 12 in fall 2024.

Cost: \$550 per student. Lunch will be provided.



THE NMHI HIGH SCHOOL EXPERIENCE

The Nutrition & Metabolic Health Initiative (NMHI) is hosting the High School Experience, a program for teens which provides a glimpse of careers in healthcare, nutrition, and working with various lifestyle-associated diseases. This unique program aims to inform students about the complexity of medical diseases and how multidisciplinary care teams work. It is a comprehensive and interactive education experience that includes information about helping people achieve good nutrition, physical activity, and healthy lifestyle patterns. Students will learn about the role of these things in diseases like obesity, diabetes and cardiovascular disease and how this fits into broader medical treatments.

The students will gain hands-on experience by operating highly specialized equipment including Parvo Medics TrueOne® Metabolic Cart and Bod Pod® machines that measure metabolism and body composition. They will also be taught to measure blood pressure, blood sugar and cholesterol, and how to draw blood using a phlebotomy training arm.

Texas Tech University faculty, staff, graduate and undergraduate students will present activities and demonstrations.

NMHI's goal in providing the program is to engage and train the next generation of healthcare providers and educate local students interested in the field.



DESCRIPTION OF ACTIVITIES

Below are the planned activities for the NMHI High School Experience.

Nutrition Session: Presentation that introduces nutrition and its importance in sustaining life.

Snack Preparation: Hands-on preparation of a healthy snack in our metabolic kitchen.

Body Composition: Presentation that defines body composition and its relationship with body mass index (BMI), as well as measurement methods.

Bioelectrical Impedance (BIA) Demonstration: Hands-on experience using the bioelectrical impedance (BIA) equipment used to calculate body composition.

Bod Pod® Demonstration: Hands-on experience using the Bod Pod machine used to calculate body composition. Includes practice being the clinician and the test subject.

How Research Works: Presentation discussing the different types of research studies.

Clinical Research: Presentation about types of clinical research and clinical trials.

Create a Healthy Plate Demonstration: Hands-on meal preparation by registered dietitians about how to create a Healthy Plate of food.

Resting Metabolic Rate: Presentation discussing metabolism, resting metabolic rate, basal metabolic rate, and measurement of resting metabolic rate.



DESCRIPTION OF ACTIVITIES



MedGem® Demonstration: Hands-on experience using the MedGem device used to measure resting metabolic rate.

Parvo Medics TrueOne® Metabolic Cart Demonstration: Hands-on demonstration using the Metabolic Cart used to measure resting metabolic rate.

Obesity Topics: Presentation giving an overview of obesity, causes, and treatments.

Lifestyle Wellness: Presentation discussing the factors that should be considered to live a healthy lifestyle.

Cardiovascular Health: Presentation discussing cardiovascular health, diseases, risk factors, and prevention. Also discusses blood pressure and cholesterol.

Blood Pressure Machine Demonstration: Hands-on experience with taking blood pressure using our blood pressure equipment.

DESCRIPTION OF ACTIVITIES

EKG Video/Demonstration: EKG Training video shown, with hands-on demonstration of placing the electrodes.

Cholesterol Measuring Machine Explanation: The Alere Cholestech LDX[™] Analyzer is shown and explained.

Blood Draw Demonstration: Hands-on experience on how to do a blood draw using our phlebotomy training arm.

Centrifuge Demonstration: Hands-on experience where students will create fake blood and learn how to spin the blood in our centrifuges.

Exercise Equipment Explanation: Treadmill, elliptical, and free weights are shown and discussed.

Blood Pressure Pre- and Post- Physical Activity: Students take blood pressure for each other before and after a short walk and compare results.

Body Image: Presentation defining body image, factors affecting body image, and discussion.

Jeopardy: Jeopardy-style game covering all topics discussed during the program.

Evaluations and Program Wrap/Presentation: Students evaluate the program and parents are invited to a presentation prepared by the students that shows what they learned during the program.





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JOIN THE HIGH SCHOOL EXPERIENCE!

Apply at
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