HMS MEDscience is a high school biology course taught in a totally new way. Students learn core science content at their school, then apply their knowledge to solving simulated medical emergencies during weekly visits at Harvard Medical School.
HMS MEDSCIENCE'S MISSION IS TO ADDRESS THE INSPIRATION AND OPPORTUNITY GAP IN STEM EDUCATION BY PROVIDING HANDS-ON EXPERIENCES THAT ENHANCE THE 21ST CENTURY SKILLS NECESSARY FOR STUDENT SUCCESS IN THEIR ACADEMICS AND FUTURE CAREERS. USING HEALTHCARE AS A LEARNING PLATFORM, WE IMMERSE STUDENTS IN REALISTIC, DYNAMIC TEAM-BASED PROBLEM SOLVING, MOTIVATING STUDENTS TO THINK CRITICALLY, AND WORK IN TEAMS.
VISION

HMS MEDSCIENCE IS A PUBLIC-PRIVATE PARTNERSHIP IN COLLABORATION WITH CLOSE TO 100 LOCAL HIGH SCHOOLS, IS BRINGING TO LIFE THE VISION THAT ALL STUDENTS, REGARDLESS OF BACKGROUND, EDUCATION OR ZIP CODE SHOULD HAVE EQUAL OPPORTUNITIES IN EDUCATION AND THE SCIENCES.
THIS SEMESTER-LONG, CREDIT-BEARING HIGH SCHOOL PROGRAM IS ENHANCED WITH WEEKLY FIELD TRIPS TO HARVARD MEDICAL SCHOOL FOR HANDS-ON TEAM-BASED EXERCISES, THAT INSTILL CONFIDENCE AND TEACH COMMUNICATION AND CRITICAL THINKING ALONG WITH DEBRIEFING DISCUSSIONS THAT REINFORCE THE CORE SCIENCE CONTENT.
PROGRAM GROWTH

IT HAS FOUR PRIMARY PROGRAMS:

1) MEDSCIENCE, WHICH HAS A FOCUS ON ANATOMY & PHYSIOLOGY, LAUNCHED IN 2008

2) MEDSCIENCE LAB, WHICH HAS A FOCUS ON CLINICAL LABORATORY SKILLS & GENETCS, LAUNCHED IN 2018

3) MEDSCIENCE MOONSHOT, WHICH HAS A FOCUS ON BIOMEDICAL ENGINEERING, LAUNCHED IN 2022

4) MEDSCIENCE FORENSICS, WHICH HAS A FOCUS ON FORENSIC MEDICINE, LAUNCHED IN 2023
MISSION-ALIGNED GROWTH

- Inspire under-represented in medicine (URIM) students to consider STEM careers

- Support our community, specifically BPS partners, with enriching programming that increases 21st century skills and health literacy
LEARN TO INVESTIGATE

BECOME A CRIME SCENE INVESTIGATOR! YOUR TEAM OF FORENSICS SCIENTISTS WILL PERFORM MEDICAL EXAMINATIONS, COLLECT AND ANALYZE EVIDENCE, AND EVEN INTERVIEW AND INTERROGATE WITNESSES. AT THE END OF THIS PROGRAM YOU WILL BE ABLE TO PRESENT A CASE AND ITS CONCLUSION TO ANY POLICE DETECTIVE OR JUDGE.
YOU WILL LEARN AND PRACTICE FORENSICS LAB TECHNIQUES INCLUDING DNA EXTRACTION, FINGERPRINTING, CELLULAR MICROSCOPY, PCR, GEL ELECTROPHORESIS, ELISA, AND HAIR AND FIBER ANALYSIS. YOUR TEAM WILL DRAFT A LABORATORY REPORT SUMMARIZING YOUR EXPERT OPINION THAT TELLS THE STORY OF THE CRIME.
GROWING NUMBER OF STUDENTS

- Summer: 25
- Fall: 30
- Spring: 35
46.5% PUBLIC SCHOOL
MORE THAN 70% FEMALE
STUDENT FEEDBACK
I LOVED THIS PROGRAM TRULY! I LOVED THE PEOPLE I WAS INTRODUCED TO AND THE OPPORTUNITIES I WAS GIVEN! I LOVED MY MENTORS & CAN’T WAIT TO BE INVOLVED IN OTHER HARVARD MEDSCI PROGRAMS!
86% of students reported “Stronger” or “Much Stronger” Interest in Forensic Science and Forensic Medicine.

100% agree or strongly agree that the way they were taught in MEDscience helped them learn the material.

97% would recommend this class to a friend.

“I HAD AN AMAZING TIME AND IT WAS SUCH AN EYE OPENING EXPERIENCE AND THIS PROGRAM JUST MADE ME LOVE FORENSIC SCIENCE EVEN MORE.”

END OF PROGRAM SURVEY RESULTS

43 RESPONDENTS
THINK DIFFERENTLY
THINK IN A NEW WAY
THINK LIKE THERE IS NO BOX
THINK LIKE A SCIENTIST