

GENERAL INFORMATION

- All eighth grade students in Hunterdon County are eligible to apply. Out of county students will be considered based on availability of seats.
- Acceptance into the program will be based on placement test scores, attendance, discipline records, 7th & 8th grade transcripts, and an interview.
- Students will be bused from their home or designated area to North Hunterdon High School (NHHS), where the program is held. Students should coordinate transportation services through their home school.
- The Academy program is designed for students to attend NHHS the entire day and for all four years of high school.
- Each BSA class is equivalent to one 55 minute class within a rolling block schedule.
- There are no fees for this program. The start up costs have been covered by grant funds and tuition is charged to the home school.
- After completing all the courses and academics necessary for graduation, students will graduate from the Biomedical Sciences Academy.
- BSA is not a substitute for the NJ State math and science graduation requirements.
- Students will be eligible to earn college credits from at least one or more NJ colleges. Colleges may require a discounted tuition fee.

FOR MORE INFORMATION

Jessica Cangelosi-Hade
Director of Curriculum and Academics
Phone: (908) 246-3488
Email: jcangelosi-hade@hcvsd.org

WWW.HCVSD.ORG |  @BioSACADEMY

EQUAL OPPORTUNITY | AFFIRMATIVE ACTION STATEMENT
It is the policy of the Hunterdon County Polytech School District not to discriminate on the basis of race, color, creed, religions, sex, ancestry, national origin, social or economic status, or disability in the education programs or activities and employment policies are required by Title IX of the Educational Amendments of 1972 and N.J.A.C. 6:4-1.1 et. Seq. Inquiries regarding compliance may be directed to our affirmative Action Office at 908-788-1119 ext. 2003.



DID YOU KNOW?

Employment of biomedical engineers is projected to **grow 23% from 2014 to 2024**, much faster than the **7%** average for all other occupations.



WWW.HCVSD.ORG



HUNTERDON COUNTY VOCATIONAL SCHOOL DISTRICT
BIOMEDICAL SCIENCES



BIOMEDICAL SCIENCES ACADEMY

The Biomedical Sciences Academy (BSA) employs a rigorous, highly focused four-year program for students with career interests in the biomedical field. The BSA utilizes Project Lead the Way's curriculum in addition to college curriculum from Rutgers University. This program provides students with exposure to concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities like investigating the death of a fictional person to learn content in the context of real-world cases. BSA students can earn up to 19 college credits in health and medical courses from Rutgers School of Health Professions (Rutgers SHP).



The HCVSD Academy model offers a unique and comprehensive approach to career and technical education. Students enroll in four years of a cohesive curriculum that provides multiple opportunities for students to earn college credits while in high school. Students participate in structured learning experiences such as internships and mentorships that are relevant to their intended college and career pathways. Additionally, students participate in career-focused extracurricular student organizations, exposing students to both local and national competitions, as well as scholarship opportunities.

9

BIOMEDICAL SCIENCES ACADEMY I

In the introductory course of the Biomedical Sciences program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. Emphasis is placed on the role of the health care practitioner as both provider and consumer of health care services.

10

BIOMEDICAL SCIENCES ACADEMY II

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Students will engage in an in-depth study of human anatomy and physiology. Exploring science in action, students build organs and tissues on a skeletal Maniken®; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases.

11

BIOMEDICAL SCIENCES ACADEMY III

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students will engage with medical terminology, giving them a comprehensive knowledge of word construction, definition and use of terms related to all areas of medical science. Additionally, students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail.

12

BIOMEDICAL SCIENCES ACADEMY II

In the final year students will design innovative solutions for the most pressing health challenges of the 21st century. This course provides students with a basic understanding of what clinical research is and the scientific principles on which it is based. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They also have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution.

BIOMEDICAL SCIENCES