



## Advancing Students Without Limits In the Mind, and Under The Microscope!

*Berry Academy Offers Two New Distinct Courses in Neuroscience and Epidemiology*

Charlotte, NC - In alignment with the Charlotte Mecklenburg Schools Strategic Plan 2018, Phillip O. Berry Academy of Technology will introduce two new courses that focus on strategic school design, innovation, high engagement and increased rigor. These courses focus on Neuroscience, and Epidemiology using a Biochemistry approach. Please see the descriptions of the classes below.

**Neuroscience:** Brain science is one of the fastest growing fields in science research. As an applied science, students who are enrolled in this course will process critical concepts in biology, chemistry, environmental science and physics and are able to apply the course's content to an array of human studies, in both liberal and research sciences. At Phillip O Berry Academy of Technology, students can enrich themselves in this rigorous course to advance their knowledge in a relevant subject area. The Neuroscience class is unique and the classroom experience differs from other current course offerings. In contrast to AP Psychology, students utilize biochemical underpinnings to explain the behavior of humans including addiction, learning, memory formation, and psychological conditions that are growing by epidemic proportions in the United States and beyond. By the course's conclusion, students will be primed to consider growing careers in the field of neuroscience and will be able to explain the basis of prominent studies such in Autism, Drug Vaccines, ADHD, and Neuroplasticity.

**Epidemiology:** The Center for Disease Control (CDC) has claimed that infectious diseases pose a continuous danger to everyone. New diseases, such as Chikungunya virus, consistently appear, and others, such as MRSA and tuberculosis, now appear in forms that are resist drug treatments. The increase in global awareness in the Ebola and cholera incite a need for students to develop skills to investigate these epidemics. The recognition of new and reemerging infections and the understanding of factors involved in disease emergence, prevention, and elimination is an ongoing mission for science globally. Infectious diseases have always been a driving force of change throughout human history and the complete impact of past epidemics on society is not widely or may not even be completely known. The stories and history about infectious diseases connect evolution to medicine and biomedical research while integrating the study of microbial physiology, ecology, and genetics. At Phillip O. Berry Academy of Technology, students will study the fundamental structural and metabolic characteristics of microorganisms (mainly prokaryotes) and will learn basic techniques for cultivation, selection, isolation, enumeration and identification. This curriculum is extensively skill, performance and laboratory based providing students with a highly engaging experience that promotes independent learning and real-life applications that are emphasized through case studies concerning diseases; epidemiology; food preparation and safety in order to develop basic skills used by microbiologists and epidemiologists. The need for qualified microbiologists continues to grow, both for basic research and practical applications and they work in almost every industry having many different responsibilities. Both the American Society for Microbiology and US News and World Report projects a high demand for trained microbiologists and epidemiologists for the near future.

We invite you to come and observe these classrooms to witness and engage in the greatness that is happening in these classrooms. We continuously enhance the STEM experience by developing new specialized and personalized experiences that support and foster college and career readiness of our students.

### About Phillip O. Berry

Phillip O. Berry Academy of Technology, a CMS school, is a county-wide magnet school for the areas of STEM (Science, Technology, Engineering, and Mathematics). The school provides a rigorous core academic curriculum as well as relevant technical offerings specific to three Science, Technology, Engineering and Math (STEM) academy clusters: the **Academy of Engineering**; the **Academy of Information Technology**; and, **The Academy of Health Sciences**. There is a focus on the practical application of STEM skills and concepts found in each academy cluster. More than 40 career and technical education courses are offered within the three STEM Academies. Berry Academy is located at 1430 Allegheny Street, Charlotte, NC 28208