



## Whitewater Wildcat STEM Academy 2017-18

### *What is STEM?*

STEM stands for Science, Technology, Engineering, and Math. STEM education integrates concepts that are usually taught as separate subjects in different classes and emphasizes the application of knowledge to real-life situations. A course in a STEM class is typically based around finding solutions to real-world problems. STEM education is at the heart of today's high-tech, high-skill global economy. Our next generations of leaders~the students of today~must develop critical-reasoning and problem-solving skills that will help make them the most productive amongst their competitors.

### *Whitewater Wildcat STEM~*

#### STEM Academy:

WHS is proud to announce Whitewater Wildcat STEM Academy, a program designed to provide advanced opportunities in Science, Technology, Engineering, and Mathematics. The courses offered in the Whitewater Wildcat STEM Academy will focus on empowering students with 21<sup>st</sup> century learning skills to prepare them for a future career in a STEM related professions. Emphasis of curriculum is placed on authentic, real-world learning, and problem solving in a cross curricular, collaborative environment integrated into a four year course of study. These courses will be rigorous in mathematical and science principles, branching into specific pathways: Engineering, Healthcare, and Computer Science. NOTE: The first class of students must complete 70% or more of the Whitewater Wildcat STEM Academy in order to graduate from Whitewater High school as a STEM scholar.

## Wildcats ~ The Innovation Zone:

Students at WHS will collaborate, create, and utilize critical thinking skills centered on fields of study and essential professions needed in the world today and tomorrow. Students will step into an experience of instructional approaches that will fuel their imaginative thinking, creative problem solving, and innovative solutions. It will be just the kind of skills that will nurture successful students in education and beyond.

## WHS ~ Project Lead the Way:

Project Lead the Way is the nation's leading provider of science, technology, engineering, and math (STEM) programs. Through world-class K-12 curriculum, high-quality teacher professional development, and outstanding partnerships, PLTW is helping students develop the skills needed to succeed in the global economy. As a 501(c)(3) nonprofit organization, PLTW programs serves WHS students with grant funding for instructional practices in the Engineering pathway. Funding from PLTW allows our students to explore critical skills in the areas of mathematics and science, while crossing curriculum in areas, such as, literature, world history, world language, and the fine arts.

## WHS ~ Healthcare

The Healthcare pathway provides students an opportunity to explore a diverse group of medical fields, including the following: Patient Care Fundamentals, Essentials of Healthcare, and Emergency Responder. Students receive their initial instruction at Whitewater High school; however, as they progress through their selected healthcare pathway, they transition to the Centers of Innovation.

The Centers of Innovation is one of Fayette County Board of Education's premiere educational facilities promoting new and innovative learning. COI is a program that supports and prepares young people to be college and career ready by connecting education to economic development. Southern Crescent Technical College has partnered with Fayette County to provide Dual Enrollment courses in Patient Care, Essentials of Healthcare, and Emergency Responder for Whitewater High School students. Additionally, the COI has partnered with Piedmont Fayette Hospital. The hospital provides supplies, guest speakers, and internships for our students.

## WHS~Computer Science

Computer Science is an up and coming college and career pathway that is ranked as one of the top 21<sup>st</sup> Century professions to date. Whitewater High school currently offers an AP Computer Science course, with introductory level Introduction to Digital Technology and Computer Science course offerings for the 2017-18 school year.

## WHS Wildcats ~ The Global Impact:

The Whitewater Wildcat STEM Academy will work to equip students with the tools they need to be competitive in a global market. Students will collaborate together as colleagues, taking a learning approach through a shared effort in problem-solving tasks. Additionally, students will be afforded course work relevant to required graduation courses, as well as, expanding their thinking beyond the classroom walls. Blended Learning opportunities may also be readily available for students such that they can work with and compete on a worldwide level.

Blended Learning is a formal education program in which a student learns at least in part through delivery of content and instruction via digital and online media with some element of student control over time, place, path, or pace. While still attending a “brick-and-mortar” school structure, face-to-face classroom methods are combined with computer-mediated activities.

As with all programs at Whitewater High School, the WHS Wildcat STEM academy will seek to provide students with Knowledge, Opportunity, and Success.