**CAREER PATHWAYS FOR WILLIAMSPORT HIGH SCHOOL STEM ACADEMYREV.2.2019**

The Science, Technology, Engineering, and Math program is open to all students as a WCPS Academy designed to serve students in K-12 grades. Students Must Complete the Application and be Accepted to the STEM Academy. During the first two years of the high school program, students will lay the groundwork for one of the Career Pathways. At the End of the Sophomore year, they will choose One of the Pathways as a concentration. This is a strong Foundation for choosing any College Major and/or Career in Science, Technology, Engineering, or Math.

**PLTW (PROJECT LEAD THE WAY) PATHWAYS** **WHS ALTERNATIVE PATHWAYS**

**(AE) AEROSPACE ENGINEERING – PLTW \*\*\* STEM Science Pathway ++**

* **IED – Introduction to Engineering Design – Core (4) Honors/AP Science Courses**
* **POE – Principles of Engineering – Core POE – Principles of Engineering**
* **AE – Aerospace Engineering – Specialization EDD – Engineering Design & Development - Capstone**
* **EDD – Engineering Design & Development – Capstone**

**(CIM) COMPUTER INTEGRATED MANUFACTURING – PLTW \*\*\* STEM Math Pathway ++**

* **IED – Introduction to Engineering Design – Core (4) Honors/AP Math Courses**
* **POE – Principles of Engineering – Core POE – Principles of Engineering**
* **CIM – Computer Integrated Manufacturing Engineering – Specialization EDD – Engineering Design & Development - Capstone**

**(Mechanical Engineering)**

* **EDD – Engineering Design & Development – Capstone**

**(CSE) COMPUTER SCIENCE & SOFTWARE ENGINEERING – PLTW \*\*\* STEM Hybrid Pathway ++**

* **IED – Introduction to Engineering Design – Core (1) AP – Advanced Placement Math Course**
* **POE – Principles of Engineering – Core (1) AP – Advanced Placement Science Course**
* **CSE – Advanced Placement Computer Science Principles – Specialization POE – Principles of Engineering**
* **EDD – Engineering Design & Development – Capstone EDD – Engineering Design & Development - Capstone**

**(CS) COMPUTER SCIENCE – PLTW STEM Core Courses**

* **Computer Science Essentials – Core Honors Biology, Chemistry, Physics**
* **Advanced Placement Computer Science Principles Honors Geometry, Algebra II, Pre-Calculus/Trigonometry**
* **Advanced Placement Computer Science A**
* **Cybersecurity**

**(DE) DIGITAL ELECTRONIC ENGINEERING – PLTW \*\* \* LEGEND**

* **IED – Introduction to Engineering Design – Core \*\*\* AP Calculus & AP Physics - Recommended**
* **POE – Principles of Engineering – Core ++ IED – Introduction to Engineering Design**
* **DE – Digital Electronic Engineering – Specialization Recommended for Successful Completion**
* **EDD – Engineering Design & Development – Capstone of EDD – Capstone**

 **SPECIALIZATION OPTIONS: Pending the Student’s Schedule, Additional or NOTE: CDM Completers are Not part**

 **All of The SPECIALIZATION Courses Can Be Taken of the STEM Program**