

MOT Charter School

Academy of Science & Technology Pathways Course Matrix

Grade Level	Biomedical Sciences and Engineering	Engineering	Science and Technology
9	Introduction to Engineering Design *Computer Science Fundamentals *Programming and Algorithms *(.5 credit each)	Introduction to Engineering Design *Computer Science Fundamentals *Programming and Algorithms *(.5 credit each)	Introduction to Engineering Design *Computer Science Fundamentals *Programming and Algorithms *(.5 credit each)
10	Principles of Biomedical Sciences (PLTW) Human Body Systems (PLTW)	Principles of Engineering (PLTW) Digital Electronics (PLTW)	Foundations of Technology (EbD)
11	Biomedical Interventions (PLTW)	Civil Engineering and Architecture (PLTW) Computer Integrated Manufacturing (PLTW)	Technological Design (EbD) Advanced Technological Applications (EbD)
12	Biomedical Innovation (Sr. Project –PLTW)	Engineering Design and Development (Sr. Project – PLTW)	Science & Technology Design and Development (Sr. Project – PLTW)
Available Electives	Oceanography (CSW) Forensics (CSW) Nanotechnology/Polymer Science (CSW) Robotics (First Robotics) Genetics and Epidemiology (CSW) A/P Environmental Science (CSW) Aerospace Engineering (PLTW)	Oceanography (CSW) Forensics (CSW) Nanotechnology/Polymer Science (CSW) Robotics (First Robotics) Genetics and Epidemiology (CSW) A/P Environmental Science (CSW) Aerospace Engineering (PLTW)	Oceanography (CSW) Forensics (CSW) Nanotechnology/Polymer Science (CSW) Robotics (First Robotics) Genetics and Epidemiology (CSW) A/P Environmental Science (CSW) Aerospace Engineering (PLTW)

- *Robotics Course is based upon FIRST Robotics competition and PLTW Robotics.*