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|  | **Pathways** |  |
| Version 1.1Updated 2/22 | **Grade****Level** | **Pre-Engineering** | **Architecture, Construction, Engineering (ACE)** | **Manufacturing & Design Engineering (M&DE)** | **Robotics** | **Core Academic Course & Pathway Alignment** |
| **Math** | **Science** | **English** |  |  |
| **Recommended Courses** Top to bottom represents a recommended sequence if a 9th grade student are at grade level and were to start in a pathway.Part of the sequence is flexible, based on grade/age of the student.This document is a work in progress. Other courses may be added to complete the pathway. | **9th** | **Introduction to Engineering Design** **(IED)** (H/L/CC)(9-12)(Full Year)(DMACC) | **Intro to CAD – Architecture & Construction (formerly 3D Architecture)** (H/L/CC)(9-12)(1 Semester) | **Intro to CAD – Manufacturing & Engineering (formerly 3D Mechanical)** (H/L/CC)(9-12)(1 Semester) Or**Introduction to Engineering Design (IED)** (H/L/CC)(9-12)(full Year)(DMACC) | **Intro to Robotics** (CC)(9-12) (1 Semester)Or**Introduction to Engineering Design (IED)** (H/L/CC)(9-12)(full Year)(Full Year)(DMACC) | **Algebra 1** |  |  |  |  |

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|  | **10th** | **Principles of Engineering (POE)** (H/L/CC)(10-12) (Full Year)(DMACC) | **Computer Aided Design Technology (CAD)** (10-12)(CC) (Full Year)(DMACC) | **Computer Aided Design Technology (CAD)** (10-12)(CC)(Full Year)(DMACC) | **Digital Electronics (DE)** (CC)(10-12)(Full Year)(DMACC)Or**Computer Integrated Manufacturing CIM)** (CC)(10-12)(Full Year)(DMACC) | **Geometry** |  |  |  |  |
| **11th** | **Computer Integrated Manufacturing (CIM)** (CC)(10-12)(Full Year)(DMACC)or **Digital Electronics (DE)** (CC)(10-12)(Full Year)(DMACC)Or**Civil Engineering & Architecture (CEA)** (CC)(11-12)(Full Year)(DMACC) | **Civil Engineering & Architecture (CEA)** (CC)(11-12)(Full Year)(DMACC) | **Computer Integrated Manufacturing CIM)** (CC)(10-12)(Full Year)(DMACC) | **Digital Electronics (DE)** (CC)(10-12)(Full Year)(DMACC)Or**Computer Integrated Manufacturing CIM)** (CC)(10-12)(Full Year)(DMACC) | **Algebra 2** | **Physics** |  |  |  |
| **12th** | **Senior Capstone Course: Engineering Design & Development (EDD)** (CC)(12)(Full Year) | **Carpentry or Construction** | **Senior Capstone Course: Engineering Design & Development (EDD)** (CC)(12)(Full Year) | **Senior Capstone Course: Engineering Design & Development (EDD)** (CC)(12)(Full Year) |  |  |  |  |  |