

Academy of Engineering & Advanced Manufacturing - Pathways

Course of Study - Researched and Designed by John Davis

2016-2017	North Carolina Career Cluster / CTE Completers / Pathways						Traditional Pathways			
	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	
	Options 1-6 students would choose completer pathway beginning of 10th grade						Options 6-8 chosen start of 9th grade			
SEATS - per grade	120 new seats per year						40 new seats per year	40 new seats per year	40 new seats per year	30 new seats per year
METS & TEAM Combined	NAF- AoE Academy of Engineering	NAF- AoE Advanced Manufacturing	NAF - PLTW Engineering	NAF- Advanced Manufacturing	Architecture and Construction	Business Management and Administration	Traditional 4 Year College Plan & (AP option)	ROTC	Other (Band, Arts, Etc)	
NAF Level	NAF - GOLD	NAF-GOLD	NAF-SILVER	NAF-SILVER						
English	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	
Math	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	
Science	3 Credits	3 Credits	3 Credits	3 Credits	3 Credits	3 Credits	3 Credits	3 Credits	3 Credits	
Social Studies	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	4 Credits	
Health & PE	1 Credit	1 Credit	1 Credit	1 Credit	1 Credit	1 Credit	1 Credit	1 Credit	1 Credit	
World Language	2 Credits (Required)	2 Credits (Required)	(Recommended)	(Recommended)	(Recommended)	(Recommended)	2 Credits (Required)	(Recommended)	(Recommended)	
4th Science (Physics)	1 Credit (Required)	1 Credit (Required)	(Recommended)	(Recommended)	(Recommended)	(Recommended)	(Recommended)	(Recommended)	(Recommended)	
Required Electives							2 Credits	4 Credits	4 Credits	
Optional Electives	6 Credits	6 Credits	11 Credits	12 Credits	12 Credits	12 Credits	8 Credits	8 Credits	8 Credits	
NAF / AoE / CTE Completer/Pathway 1	Project Management I	Project Management I	Project Management I	Project Management I	Project Management I	Project Management I	AP Elective I	ROTC I	The ARTs I	
NAF / AoE / CTE Completer/Pathway 2	^ IED - Introduction Engineering Design	^ IED - Introduction Engineering Design	^ IED - Introduction Engineering Design	Advanced Manufacturing I Manual Mill & Lathe	Core & Sustainable Construction	Principles of Business & Finance	AP Elective II	ROTC II	The ARTs II	
NAF / AoE / CTE Completer/Pathway 3	^ POE - Principles of Engineering	^ POE - Principles of Engineering	^ POE - Principles of Engineering	Advanced Manufacturing I I CNC Mill & Lathe	*Carpentry - 1	Entrepreneurship I	AP Elective III	ROTC III	The ARTs III	
NAF / AoE / CTE Completer/Pathway 4	*^ CIM - Computer Integrated Manufacturing	Advanced Manufacturing I Manual Mill & Lathe	*^ DE Digital Electronics OR CIM - Computer Integ. Manuf.	CTE Advanced Studies	*Carpentry - 2	*Entrepreneurship II	AP Elective IV	ROTC IV	The ARTs IV	
NAF / AoE / CTE Completer/Pathway 5	~*^ DE Digital Electronics	Advanced Manufacturing I I CNC Mill & Lathe	~EDD - Engineering Design & Develop. (Engineering Based) (Recommended)	CTE Career and College Promise I (Recommended)	CTE Career and College Promise I (Recommended)	CTE Career and College Promise I (Recommended)	Acronym(s) IED -Introduction to Engineering Design POE - Principles of Engineering CIM - Computer Integrated Manufacturing DE - Digital Electronics Engineering CEA - Civil Engineering & Architecture EDD - Engineering Design & Development AM-I, II - Advanced Manufacturing PLTW - Project Lead The Way CTE - Career & Technical Education NAF - National Academy Foundation AoE - Academy of Engineering			
NAF / AoE / CTE Completer/Pathway 6	~EDD - Engineering Design & Develop. (Engineering Based) (Recommended)	*^ CIM - Computer Integrated Manufacturing	CTE Career and College Promise I (Recommended)							
NAF / AoE / CTE Completer/Pathway 7	CTE Career and College Promise I (Required)	~EDD - Engineering Design & Development (Machining Based)								
NAF / AoE / CTE Internship	NAF Internship (Required)	NAF Internship (Required)	Internship (Recommended)	Internship (Recommended)	Internship (Recommended)	Internship (Recommended)				

*NCDPI Completer Course
 ^ CTE - A.P. Course (PLTW)
 ~ PLTW Completer Course
 ALL CTE Courses can be either Standard or Honors
 This pathway meets all requirements for CMS, CTE, NCDPI, PLTW, AoE, and NAF as a completed pathway

Highly Recommend Options for
 REQUIRED and OPTIONAL Electives
 8510 Project Management I
 8512* Project Management II-Technology
 8595 CTE Advanced Studies
 8596 CTE Apprenticeship
 8598 CTE Career and College Promise I
 8599* CTE Career and College Promise II