


Career Cluster: Manufacturing		CTE Program: 9200200 Advanced Manufacturing Technology Postsecondary Program: 1615080101 Manufacturing Technology AS						
Career Cluster Pathway: Manufacturing Production Process		Secondary Industry Certification(s): 1. Certified Solidworks Associate (CSWA) (May substitute for math or science credit except Algebra 1, Geometry, and Biology) Postsecondary Industry Certification(s): 1. Certified Solidworks Professional-Academic (CSWP-Academic)						
	17 1/2 REQUIRED CORE CREDITS					8 1/2 ADDITIONAL CREDITS		
	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	Additional Required Credits	8.5 Electives, Including CTE sequential Program of Study and recommended electives * Signifies CTE course meets Performing Arts graduation credit requirement		
	4 credits	4 credits	3 or 4 credits, 2 w/ lab	3 or 4 credits	HOPE, Performing Arts, and CRDM			
HIGH SCHOOL	<ul style="list-style-type: none"> Students are encouraged to begin planning for careers and postsecondary options by exploring resources at mycareershines.org. Students are also encouraged to participate in dual enrollment courses which may be used to satisfy high school graduation or Bright Futures Gold Seal Vocational Scholars course requirements. One course within the 26 credit program must be an online course. Cumulative GPA of 2.0 on a 4.0 scale for 26 credit program. 							
	9	English Honors 1	Geometry 1 Honors	Biology 1 Honors or Integrated Science 1 Honors	World History Honors	Career Research & Decision Making (.5cdt)/Elective (Ethics .5cdt)	Advanced Manufacturing Technology 1	Elective (Foreign Language)
	10	English Honors 2	Algebra 2 Honors	Chemistry 1 Honors or Integrated Science 2 Honors	AP United States History or American History Honors	HOPE	Advanced Manufacturing Technology 2	Elective (Digital Information Technology or DE Microcomputer Applications CGS 2100 / DE Multimedia Presentations CGS 1871)
	11	AP English Language & Comp or English Honors 3	PreCalc or Advance Math Topics	Physics 1 Honors or Integrated Science 3 Honors	American Government Honors/ AP Economics	Elective (Art 3D Comprehensive)	Advanced Manufacturing Technology 3	Elective (DE Circuit Fundamentals EETC 1025 / DE Instrumental Fundamentals EST 1520)
	12	AP English Lit & Comp or English Honors 4 or DE ENC 1101 Comp 1/DE ENC 2210 Technical Writing	Advanced Math Topics or PreCalc or AP Statistics or DE MAC 1105 College Algebra/DE STA 2023	AP Science or Integrated Science 4 Honors	Sociology Psychology 1 or AP Psychology	Elective (Speech or DE Speech SPC 2608 / DE Art History ARH 2051)	Advanced Manufacturing Technology 4	Elective (DE ETMC 1010 Mechanical Measurement/ ETIC 2851 Applied Mechanics)
POSTSECONDARY	Secondary career and technical education programs may lead to industry recognized certificates, occupational opportunities or postsecondary education options. Based on the Career Cluster of interest and identified CTE program, the following postsecondary options are available. The official college or university catalog must be used to determine course requirements in the major.							
	http://www.easternflorida.edu/academics/career-technical-programs/our-programs/					UNIVERSITY PROGRAM(S) Bachelors Degree (four-year)		
	Eastern Florida State College							
	Applied Tech Specialist CCC			Engineering Technology & Advanced Manufacturing AS (ETAS)			University of Central Florida:	
	Engineering Tech Support Specialist CCC			Aerospace Technology AS (ATAS)			Electronics Technology BSET	
	Composite Fabrication & Testing CCC						Computer Engineering BS	
Alternative Energy Systems Specialist CCC						Electrical Engineering BSEEE		
CNC Machinist CCC						Mechanical Engineering BS		
CAREER	Sample Career Specialties							
	Technical Assembler Manufacturing technician Solderer CNC Machine Operator			Advanced Repair Technician Junior Engineer Biomedical Repair Technician Computer-Aided Design Engineer Cellular Telephone Repair Technician First Line Supervisors of Production and Operating Workers (HSHW/TOL)			Electrical Engineer Electronics Engineer Mechanical Engineer Computer Engineer	
CREDIT	Articulation and CTE Dual Enrollment Opportunities							
	Secondary to Technical Center (PSAV)			Secondary to College Credit Certificate or Degree <small>(Minimum # of clock or credit hours awarded)</small>			Industry Certification to PSAV, AAS or AS <small>(Statewide or other local agreements may be included here)</small>	
				Articulated credit to which courses and number of credits				
			http://www.easternflorida.edu/admissions/registrars-office/credit-evaluation/leap/documents/solid003-cswa-academ-cswp-academ.pdf			Eastern Florida State College: Florida Gold Standard Articulation Agreement for SOLID003 shall articulate 3 credit hours for the AAS/AS in Manufacturing Technology.		
Career and Technical Student Association:								
Skills USA								
Internship/Work Experience Recommendations: Work-Based Experience (8601800)								
Work-Based Experience (8601800) ETD 2941 Internship (3-6 college credits)								

Student Progression Plan, on Brevard Public Schools web site, containing graduation requirements:

<http://elementarypgms.sp.brevardschools.org/Home/Documents/Student%20Progression%20Plan.pdf>

Cell: C6

Comment: Four (4) credits in English, with a major concentration in composition, reading for information, and literature.

Cell: D6

Comment: Four (4) credits in mathematics, one of which must be Algebra1, a series equivalent to Algebra 1, or a high-level mathematics course. School districts are encouraged to set specific goals to increase enrollments in, and successful completion of, geometry and Algebra 2.

Cell: E6

Comment: Four (4) credits in science to include 3 sequential courses in either Biology, Chemistry, and Physics or Integrated 1, 2 and 3 plus one (1) science additional credit.

Cell: F6

Comment: Four (4) credits in social studies as follows: one (1) credit in American history; one (1) credit in world history; one-half credit in economics; one-half credit in American Government; and one (1) social studies elective credit.

Cell: C13

Comment: EFSC: Dual Enrollment ENC 1101 (English Composition 1) (1 HS credit or 3 college credits) and ENC 2210 Technical Writing is a suggested option for qualified students who are seeking an AS, AA, or BS/BA degree.

Cell: D13


Comment: EFSC: Dual Enrollment MAC 1105, College Algebra and STA 2023 Statistics are suggested but not required for qualified high school students who are AA or BA/BS degree seeking. MAT 1033, Intermediate College Algebra, is suggested but not required for qualified high school students who are seeking an AS degree.

Cell: G13

Comment: EFSC: Dual Enrollment SPC2608 Speech is a recommended option for qualified students and equals .5 HS credit and 3 required college credits for the AA or AAS programs. ARH 1051 will satisfy both the .5 HS credit for Fine Arts and 3 college credits for Humanities in the AA or AAS programs.

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HIGH SCHOOL	9	English Honors 1	Algebra 1	Biology 1 Honors or Integrated Science 1 Honors	World History Honors	Career Research & Decision Making (.5cdt)/Elective (Ethics .5cdt)	Advanced Manufacturing Technology 1	Elective (Foreign Language)
	10	English Honors 2	Geometry	Chemistry 1 Honors or Integrated Science 2 Honors	American History Honors	HOPE	Advanced Manufacturing Technology 2	Elective (Foreign Language)
	11	AP English Language & Comp or English Honors 3	Algebra 2	Physics 1 Honors or Integrated Science 3 Honors	American Government/ Economics	Elective (Digital Information Technology)	Advanced Manufacturing Technology 3	Elective (DE Circuit Fundamentals EETC 1025 / DE Instrumental Fundamentals EST 1520)
	12	AP English Lit & Comp or English Honors 4	Advanced Math Topics, PreCalc, or AP Statistics	Anatomy and Physiology Honors	AP Psychology or Sociology/ Psychology 1 OR Sports Psychology	Elective (Speech)	Advanced Manufacturing Technology 4	Elective (DE ETMC 1010 Mechanical Measurement/ ETIC 2851 Applied Mechanics)

POSTSECONDARY	Secondary career and technical education programs may lead to industry recognized certificates, occupational opportunities or postsecondary education options. Based on the Career Cluster of interest and identified CTE program, the following postsecondary options are available. The official college or university catalog must be used to determine course requirements in the major.							
	Eastern Florida State College: www.easternflorida.edu						UNIVERSITY PROGRAM(S) Bachelors Degree (four-year)	
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	Applied Tech Specialist CCC			Engineering Technology AS			University of Central Florida:	
	Engineering Tech Support Specialist CCC			Aerospace Technology AS (ATAS)			Electronics Technology BSET	
	Composite Fabrication & Testing CCC						Computer Engineering BS	
Alternative Energy Systems Specialist CCC						Electrical Engineering BSEEE		
CNC Machinist CCC						Mechanical Engineering BS		

CAREER	SAMPLE CAREER SPECIALTIES							
	Technical Assembler Manufacturing technician Solderer		Advanced Repair Technician Junior Engineer Biomedical Repair Technician Computer-Aided Design Engineer Cellular Telephone Repair Technician				Electrical engineer Electronics engineer Mechanical engineer Computer Engineer	

CREDIT	Sample Career Specialties							
	Secondary to Technical Center (PSAV) (Minimum # of clock hours awarded per institution)			Secondary to College Credit Certificate or Degree (Minimum # of clock or credit hours awarded) Articulated credit to which courses and number of credits			Industry Certification to PSAV, AAS or AS (Statewide or other local agreements may be included here)	
				http://www.easternflorida.edu/admissions/registrars-office/credit-evaluation/leap/documents/solid003-cswa-academ-cswp-academ.pdf			Eastern Florida State College: Florida Gold Standard Articulation Agreement for SOLID003 shall articulate 3 credit hours for the AAS/AS in Manufacturing Technology.	

- Career and Technical Student Association:**
- Skills USA
- Internship/Work Experience Recommendations:**
- Work-Based Experience (8601800) ETD 2941 Internship (3-6 college credits)
- Student Progression Plan, on Brevard Public Schools web site, containing graduation requirements:**

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	10	English 2	Applied Math 2	Chemistry 1 or Integrated Science 2	American History	HOPE	Advanced Manufacturing Technology 2	Elective (Intensive Reading)
	11	English 3	Informal Geometry or Geometry 1	Physics 1 or Integrated Science 3	American Government/ Economics	Elective (Art 3D Comprehensive)	Advanced Manufacturing Technology 3	Elective (Intensive Reading)
	12	English 4	Algebra 2	Anatomy & Physiology	Psychology 1 / Sociology	Elective (Speech)	Advanced Manufacturing Technology 4	Elective (Intensive Reading)
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