


Career Cluster: Engineering & Technology Education (STEM)		CTE Program: Secondary: Academy of Leadership in Emerging Technologies - Applied Robotics (9410100) Tocoi Creek High School, St. Johns County School District						
Career Cluster Pathway: Engineering and Technology		Industry Certification: Secondary: Small UAS Safety (USINS001), Autodesk Certified User – AutoCAD (ADESK002), Autodesk Certified User- Inventor (ADESK011), Project Management Institute (PRMIN004)						
		16 CORE CURRICULUM CREDITS					8 ADDITIONAL CREDITS	
		ENGLISH 4 credits	MATH 4 credits	SCIENCE 3 credits, 2 with lab	SOCIAL STUDIES 3 credits	OTHER REQUIRED COURSES FINE ARTS (1 credit) PHYSICAL EDUCATION (1 credit)	CAREER AND TECHNICAL EDUCATION COURSES	RECOMMENDED ELECTIVES (ALIGNED WITH STATE COLLEGE & UNIVERSITY SYSTEM PROGRAMS)
HIGH SCHOOL	<ul style="list-style-type: none"> Students are encouraged to use mycareershines.org to explore careers and postsecondary options. 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 24 credit program must be an online course. Cumulative GPA of 2.0 on a 4.0 scale for 24 credit program 							
	9th	English 1, English Honors 1	Algebra I, Algebra 1 Honors, Geometry Honors, Algebra 2 Honors	Environmental Science, Physical Science, Biology 1 Honors	AP Human Geography or Elective	HOPE – Health Opportunities through Physical Education	Foundations of Robotics Honors (9410110)	Foundations of Programming
	10th	English 2, English Honors 2	Liberal Arts Math 1, Geometry, Geometry Honors, Pre-Calculus Honors	Biology, Biology Honors, Chemistry, Chemistry Honors	AP World History, World History, World History Honors	World Language 1	Robotic Design Essentials Honors (9410120)	AP Computer Science Principals
	11th	English 3, English Honors 3 DE Freshman English 1 ENC 1101, AP Language	Geometry, Algebra 2, Algebra 2 Honors, AP Calculus AB	Marine Science, Marine Science Honors, Earth Science, Anatomy and Physiology Honors, Chemistry, Chemistry Honors, Physics Honors	AP US History, US History, Dual Enrollment AMH 2010	World Language 2	Robotic Systems and Survey of Emerging Technologies (Robotic Systems Honors 9410130)	Elective
	12th	English 4, English Honors 4, AP or DE Freshman English 1 (ENC1102), AP Literature	Financial Algebra, Math for College Readiness, Probability and Statistics, AP Statistics, AP Calculus BC	AP Biology, AP Chemistry, AP Environmental Science, AP Physics	American Government .5 + Economics .5, AP Macro/Micro Econ, AP US Fed Gov't	Elective	Leadership in Artificial Intelligence (AI) (Robotic Applications Capstone 9410140)	Elective
	Based on the Career Cluster of interest and identified career and technical education program, the following postsecondary options are available.							
POSTSECONDARY	TECHNICAL COLLEGE PROGRAM(S)		STATE COLLEGE PROGRAM(S)			UNIVERSITY PROGRAM(S)		
	N/A		St. Johns River State College, St. Augustine: College Credit Certificates (CCC): Engineering Technology Support Specialist, Mechatronics, Robotics and Simulation Technician Associate in Science (A.S.) Degree in Engineering Technology			University of North Florida, Jacksonville: College of Computing, Engineering & Construction – Mechanical Engineering (B.S.), MS in Mechanical Engineering Embry-Riddle Aeronautical University, Daytona: Mechanical Engineering (B.S.), MS in Mechanical Engineering, Ph.D. in Mechanical Engineering, MS in Unmanned and Autonomous Systems Engineer, MS in Unmanned Systems		

CAREER	Sample Career Specialties from the Demand Occupations List		
	Electrical and Electronics Repairers, Commercial and Industrial Equipment, Electrical and Electronic Equipment Assemblers, Electromechanical Equipment Assemblers, Aerospace Engineering and Operations Technicians	First-line Supervisors of Production and Operating Workers, Engineering Technology Support Specialist, Robotics and Simulation Technician	Automation Engineer, Autonomous Vehicle, Design Engineer, Design Engineer, Factory Automations Engineer, Research Engineer Robotic Systems Engineer, Mechanical Engineer, Unmanned and Autonomous Systems Engineer
Career and Technical Student Association			
FL-TSA, SkillsUSA			
Internship/Work Experience Recommendations			
Career Academy students may apply for summer internships after their junior year.			
Program of Study Graduation Requirements: http://www.fldoe.org/academics/graduation-requirements			