


Career Cluster: Manufacturing STEM	CTE Program: Academy of Biotechnology and Medical Research Secondary: Ponte Vedra High School, St. Johns County School District Industrial Biotechnology (8736000) Postsecondary: FL State College at Jacksonville Biomedical Science (B.S.- 26.0102), Biotechnology Laboratory Technician (A.S.- 1341010100), Biotechnology Laboratory Specialist (CCC-0341010101), Biotechnology Specialist (CCC-0626120101)
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Career Cluster Pathway: Maintenance, Installation & Repair	Industry Certification:: Secondary: Biotechnician Assistant (CERHB001) Postsecondary: FL State College at Jacksonville: NA
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	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 COMMUNITY COLLEGE & STATE UNIVERSITY SYSTEM PROGRAMS)

- Students are encouraged to use www.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

HIGH SCHOOL	9th	English 1, English 1 Honors	Algebra 1, Algebra 1 Honors	Physical Science, Physical Science Honors	World Culture Geography or AP Human Geography	HOPE – Health Opportunities through Physical Education	Biotechnology I –(Honors)-3027010	Foreign Language (Latin recommended)
	10th	English 2, English 2 Honors	Geometry, Geometry Honors, Pre-Calculus	Biology 1, Biology 1 Honors, AP Biology	World History or International Relations Honors	Elective	Biotechnology II –(Honors)-3027020	Foreign language (Latin recommended)
	11th	English 3, English 3 Honors	Algebra 2, Algebra 2 Honors	Earth & Space Science, AP Environmental Science, Chemistry, Chemistry 1 Honors, AP Chemistry	US History, US History Honors, AP US History	Elective	Biotechnology III –(Honors)-8736030	Foreign Language (Latin recommended)
	12th	English 4, English 4 Honors	Pre-Calculus Honors, Math for College Readiness, Advanced Topics in Math, AP Calculus, AP Statistics	Marine Science, Anatomy & Physiology Honors	American Government or American Government Honors or AP U.S. Government & Politics .5 + Economics.5 or Economics Honors .5, AP Macroeconomics, AP Microeconomics & DE US Fed Gov't	Elective or UNF Dual Enrollment – Speech – SPC 2608	Experimental Science - (Honors)-2002340	Foreign language (Latin recommended)

CAREER POSTSECONDARY	Based on the Career Cluster of interest and identified career and technical education program, the following postsecondary options are available.		
	TECHNICAL CENTER PROGRAM(S)	COMMUNITY COLLEGE PROGRAM(S)	UNIVERSITY PROGRAM(S)
	Florida State College at Jacksonville: Certificates in Biotechnology Laboratory Specialist in Health Science, Biotechnology Laboratory Specialist in Manufacturing, Biotechnology Specialist	FL State College at Jacksonville: A.S. in Biotechnology Laboratory Technology and Environmental Science Technology	University of Florida, Gainesville B.S. in Biomedical Engineering, Biological Engineering, Biochemical & Molecular Biology FL State College at Jacksonville: B.S. in Biomedical Sciences
CAREER	Sample Career Specialties – Careers from the Targeted Occupations List are in bold.		
	Biomedical Technician	Biomedical Technician	Molecular Biologist; Analytical Chemist; Biomedical Engineer; Microbiology Cell Scientist; Plant Pathologist
CREDIT	Articulation and CTE Dual Enrollment Opportunities		
	Secondary to Technical Center (PSAV) (Minimum # of clock hours awarded)	Secondary to College Credit Certificate or Degree (Minimum # of clock or credit hours awarded)	PSAV/PSV to AAS or AS/BS/BAS (Statewide and other local agreements included here)
	No articulation agreement. No CTE Dual Enrollment.	FSC at Jax.: Biotechnician Assistant Industry Certification = 4 credits in Introduction to Biotechnology Methods – BSC1421C. Dual enrollment credits are not offered.	No articulation agreement. No CTE Dual Enrollment.
Career and Technical Student Association			
Ponte Vedra High School Biotechnology Club			
Internship/Work Experience Recommendations			
Career Academy students may apply for summer internships after their junior year. Sample internships: Mayo Clinic Researcher, Hospital Medical Lab Technician, Veterinary Clinic Animal Care			
Program of Study Graduation Requirements: http://www.fldoe.org/academics/graduation-requirements			