



Career Pathways: Design/Pre-Construction, Construction, Maintenance/Operation

Overview: The Architecture & Construction Cluster focuses on careers in designing, planning, managing, building and maintaining the built environment.

PROGRAM OF STUDY					CAREER RELATED EXPERIENCES		
Secondary (*Dual Enrollment)	6th – 8th	Career-Related Electives:	Art World Language Band	Chorus Living Skills Drama	Orchestra Computers Technology	<p>Curricular: Enrollment in New Horizons Career and Technical Education Programs</p> <p>Work-Based: Job Shadowing Internship Mentorships</p> <p>Extracurricular: Technology Students Association (TSA) Odyssey of the Mind Building and Design Competitions Skills USA Career Café Mega Genesis Career Expo Service Organizations Examples: Key Club, Keyettes, Interact</p> <p>Service Learning: Habitat for Humanity Community Service Examples: The Food Bank of the Virginia Peninsula The Boys & Girls Club Community Center Training Faith-based tutoring programs Mariners' Museum Volunteers Riverside Regional Medical Center Volunteers</p>	
	Career Assessment (Kuder®)						
	9th	Core Courses:	English 9/Honors Algebra I or Honors Geometry	World Geography/ Honors/AP Human Geography	Health & PE World Language Earth Science/Honors		
		Career-Related Electives:	Foundations in Technology	Computer Applications	*Digital Input Technology		
	10th	Core Courses:	English 10/Honors Biology/Honors	World History Honors/AP Geometry	Health & PE World Language		
		Career-Related Electives:	Basic Technical Drawing	Finance	*Business Management		
	11th	Core Courses:	English 11/Honors/AP Chemistry	Algebra II or H. Algebra II/Trig	US History/Honors/AP World Language		
		Career-Related Electives:	*Engineering Drawing Architectural Drawing Construction Trades	HVAC II Carpentry I Residential Wiring	Masonry II Electricity/Electronics I		
	12th	Core Courses:	H. Chemistry, Physics, AP Environmental Sci., Algebra II or H. Algebra II/Trig	World Language III English 12/Honors/AP	Government/Honors/AP		
		Career-Related Electives:	Electricity/Electronics II	HVAC II Masonry II	Carpentry II		
Post Secondary Placement Assessments (SAT, ACT, ASVAB, etc.)							
Postsecondary	On-the-Job Training	Carpentry Construction Trades NOTE: These experiences may be completed as part of the High School experience	Masonry Glazing Welding Drafting			<p>Sample Careers Computer Aided Drafter Construction Foreman General Contractor HVAC Mechanic Architect Mason Plumber Urban Planner/Designer</p> <p>Professional Associations: American Institute of Architecture Students Associated Builders and Contractors Associated General Contractors Construction Management Association Design Build Institute of America</p>	
	Credentials	A+ Certification, Net+ Certification, Microsoft Certified Systems Administrator Certification, CISCO, Microsoft Certified Engineering, AutoCAD, HVAC NOTE: Students may earn all or part of these certificates as part of the High School experience					
	Associate's Degree	Construction Technology Construction Management Drafting CAD	Engineering Technology Surveying, HVAC, Welding	College Connections Thomas Nelson Community College Tidewater Community College			
	Bachelor's Degrees	Architectural Engineering Architecture Engineering	Construction Science/Management Engineering Technology	College Connections ODU, VCU, etc. Public Colleges and Universities Private Colleges and Universities For a list, visit: www.schev.edu			
	Graduate Degree	Engineering Construction Science/Management	Management	College Connections ODU, VCU, etc. Public Colleges and Universities Private Colleges and Universities For a list, visit: www.schev.edu			

Students should take four years of mathematics and science during high school. There are opportunities for dual enrollment courses with TNCC and career and technical options at New Horizons Regional Center.

Students should take Advanced Placement (AP), International Baccalaureate (IB), due credit, or Career and Technical (CTE) courses, as applicable.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information available. Individual student plans should be reviewed frequently with school counselor to ensure high school graduation and post-secondary entrance requirements are satisfied, as applicable.