CareerClusters®
PATHWAYS TO COLLEGE & CAREER READINESS
Architecture & Construction

Student Name:
School:
Date:

Cluster: Architecture and Construction
Pathway: Construction (Architecture Technology A.A.S.)

This Career Pathway Plan of Study can serve as a guide, along with other career planning materials, as learners continue on a career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals. This Plan of Study, used for learners at an educational institution, should be customized with course titles/SCED codes and appropriate high school graduation requirements as well as college entrance requirements.

List Sample Occupations Related to This Pathway: Sample occupation listings may be located at CTE Resource Center Career Clusters; or the National Career Clusters® Frameworks.

• Construction Technology	• Roofer
• Drafting	• Cost Estimator
• Architecture technology & design	• Restoration Technician
• Entrepreneur	• Mason
• General Manager	• Plumber, Pipefitter
• Risk Manager	• Tile Installer
• Carpenter	• Architectural Drafter
• Construction & Building Inspector	• Building Code Inspector
• Construction Manager	• Cost Estimator
• Drywall Installer	• Interior Designer
• General Contractor	• Survey Technician
• Project Manager	• Surveyor
• Building Code Inspector	

Career Assessment: Identify an appropriate career assessment instrument at the middle school level used to help students and their parents plan for high school:
- VA Wizard ☐
- Or other assessment (please indicate): Major Clarity

Middle School Note: Indicate State Course Titles and SCED Codes

Grade	English/ Language Arts	Mathematics	Science	Social Studies/ Social Science	Other Required Courses/ Recommended Electives/Learner Activities	Recommended Career and Technical Courses
7	English 7 (01035)	Math 7 (2037)	Life Science (03158)	U S History (04102/04103)	PE 7	Inventions and Innovations (21099)
8	English 8 (01036)	Math 8/Pre-Algebra (02038)	Physical Science (03159)	Civics & Economics (04161)	PE 8	Technological Systems ()

Secondary School Note: Indicate State Course Titles and SCED Codes – High school courses in the pathway offered locally for college credit should be coded: DE (Dual Enrollment) and/or VC (Validated Credit)

Grad	English/ Language Arts	Mathematics	Science	Social Studies/ Social Science	Other Required Courses/ Recommended Electives/Learner Activities	Recommended Career and Technical Courses
9	English (01001)	Algebra I (02052) Or Geometry (02052)	Biology I (03051)	World History/ Geography I (04052) Or AP Human Geog (04004)	• Economics & Personal Finance (19262) • Health & PE (2 years) • Foreign Language (3 years) • Other Electives to Complement Pathway (Core Academic and CTE)	• 8450 Engineering Explorations • Open Elective • **Summer Bridge** SDV 100 NOVA **(1 credit)**
10	English (01002)	Geometry (02072) Or Algebra Functions(02902) Data Analysis Or Algebra 2 (0256)	Earth Science (03001) Earth Sci 2 (Oceanography) or ESci 2 Astronomy (03004) or Chemistry (03101)	World History/ Geography II (04053) or AP World History Modern (04067)	• Economics & Personal Finance (19262) • Health & PE (2 years) • Foreign Language (3 years) • Other Electives to Complement Pathway (Core Academic and CTE):	• **8431 DE Construction Technology/** ARC 133 & ARC 225 **(6 credits)** • Open Elective or EPF
11	**DE English 11 (01003)/** ENG 111 & ENG 112 **(6 credits)**	Alg Funct.Data Analysis (02902) Algebra II (02056) Or Pre Calc (02104)	Chemistry I (03101) or Physics (03151) Earth Sci 2 (03005) (Oceanography) E.S. 2 Astronomy 03004	**DE US History 122 (04101)/** HIS 121 & HIS 122 **(6 credits)**	• Economics & Personal Finance (19262) Foreign Language (3 years) • Other Electives to Complement Pathway (Core Academic and CTE):	• **8435 Tech Draw & Design/** ARC 123 (lab) & CAD 201 **(7 credits)** • EPF or Open HS Elective/Externship • Open Elective/Externship

Grad	English/ Language Arts	Mathematics	Science	Social Studies/ Social Science	Other Required Courses/ Recommended Electives/Learner Activities	Recommended Career and Technical Courses
12	**DE English 12 (01004)/** ==ENG 255== **(3 credits)**	Algebra 2 (20056 Probability and Statistics (02201) or DE or AP Calculus	Chemistry or Physics I (03151) Earth Sci 2 (03005) (Oceanography) E.S. 2 (Astronomy) (03004)	VA/US Government (04151) or AP VA/US Govt (04157)	• Economics & Personal Finance (19262) • Other Electives to Complement Pathway (Core Academic and CTE):	• **8411 DE Energy Supply: Sustainability & Efficiency/** ==ARC 243== **(4 credits)** • **8414 DE Sustainable and Renewable Technologies/** ==ARC 240== **(3 credits)** • **8437 Arch Drawing and Design/** ==CAD 202 & ARC 124== **(7 credits)** • Open Elective/Externship

List related certifications/credentials approved by VDOE and offered locally:

- Workplace Readiness Skills
- OSHA 10

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ADDITIONAL LEARNING OPPORTUNITIES:

CTSO Organization(s):
- DECA ☐
- FBLA ☐
- FCCLA ☐
- FFA ☐

- Educators Rising ☐
- HOSA- Future Health Professionals ☐
- SkillsUSA ☐
- TSA ☒

Work-Based Learning:
- Job Shadowing ☐
- Mentorship ☒
- Internship ☒
- Service Learning ☐
- Clinical Experience ☐
- Externships ☒
- Cooperative Education ☐

- Youth Registered Apprenticeship ☐
- Registered Apprenticeship ☐
- Supervised Agricultural Experience ☐
- Entrepreneurship ☐
- School Based Enterprise ☐

POSTSECONDARY

- College: Northern Virginia Community College
- School Division(s): Alexandria City Public Schools

SAMPLE POSTSECONDARY PROGRAMS RELATED TO THIS CAREER PATHWAY
Individual plans must include locally agreed upon courses at the postsecondary level

Pathway	Associate's Degree, College Certificate, or Apprenticeship	Bachelor's Degree	Postgraduate Degree
Construction	Architecture Technology A.A.S.	Currently not transferrable credits to a 4-year program.	(Determined Locally – Optional)

POSTSECONDARY - COMMUNITY COLLEGE or APPRENTICESHIP - Determined Locally

Directions:

- Postsecondary: Placement Assessments such as Virginia Placement Test or COMPASS
- College Entrance Exams such as ACT or SAT
- Postsecondary Plan of Studies must include postsecondary academic, CTE, and other elective courses appropriate for an Associate Degree.
- College courses offered locally in the high school for college credit should be coded: DE (Dual Enrollment) and/or VC (Validated Credit)

Semester	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives	Required Courses or Recommended Electives	Required Courses or Recommended Electives	Required Courses or Recommended Electives	Required Courses or Recommended Electives
Year 1 1st Semester		MTH 161 **(3 credits)**			ARC 138 **(3 credits)**	ARC 298 **(3 credits)**	ARC 134 **(3 credits)**	ARC 231 **(4 credits)**	
Year 1 2nd Semester					CST 110 **(3 credits)**	ARC 232 **(4 credits)**	PED 116 **(1 credit)**	ARC 200 **(4 credits)**	CAD 203 **(3 credits)**
Year 2 1st Semester									
Year 2 2nd Semester									

RELATED INDUSTRY CERTIFICATIONS AVAILABLE:

OSHA 10

ADDITIONAL LEARNING OPPORTUNITIES:

Work-Based Learning:

- Job Shadowing ☐
- Mentorship ☒
- Internship ☒
- Service Learning ☐
- Clinical Experience ☐
- Externships ☒

- Cooperative Education ☐
- Youth Registered Apprenticeship ☐
- Registered Apprenticeship ☐
- Supervised Agricultural Experience ☐
- Entrepreneurship ☐
- School Based Enterprise ☐

UNIVERSITY INFORMATION:

- University/College:
- Degree or Major:
- Number of Articulated CC Credits:

NOTES:

AC STEM at Alexandria City High School
- Offers students an opportunity to earn a high school diploma, industry certifications, work-based learning experiences, and complete an Associate of Applied Science (A.A.S.) degree within just one year after graduating high school.
- During the 5-year program, the first four years with be at the high school, where students will earn dual enrollment credits at no cost, followed by the fifth year at the community college.
- Students will have the opportunity to earn half of the college credits needed for the A.A.S. degree while in H.S

Prepares students for careers in architecture, energy, construction, design, urban design, and skilled trades.

Prepares students for careers in engineering, energy, manufacturing, data center information technology, and distribution systems.