

Cluster: Architecture and Construction Pathway: Construction: Management

This Career Pathway Plan of Study can serve as a guide and 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 and appropriate high school graduation requirements as well as college entrance requirements.

EDUCATION LEVELS	GRADE	English/ Language Arts	Mathematics	Science	Social Studies/ Science	Other Required Courses Recommended Electives Learner Activities	Recommended Career and Technical Courses Source: Administrative Planning Guide http://www.cteresource.org/apg/	SAMPLE – Occupations Relating to This Pathway: http://www.doe.virginia.gov/instruction/career_technical/career_clusters/sample_plans_study/index.shtml http://www.careerclusters.org http://www.cteresource.org/cpg/
Graduation Requirements: http://www.doe.virginia.gov/instruction/graduation/index.shtml								
MIDDLE	7	English 7 (1110)	Math 7 (3111)	Life Science (4115)	U S History I (2354)	Health, PE, Family Life (7120)	Inventions and Innovations (8464) .5 Elective OR Computer Solutions (6609) .5 Elective	<ul style="list-style-type: none"> • Entrepreneur • Chief Executive Officer • General Manager • Public Relations Manager • Human Res Manager • Government Manager • Risk Manager • Carpenter • Construction & Building Inspector • Construction Manager • Drywall Installer • General Contractor • Project Manager • Roofer • Building Code Inspector • Cost Estimator • Restoration Technician • Mason • Plumber, Pipefitter • Tile Installer • Architect • Architectural Drafter • Building Code Inspector • Civil Engineer • Cost Estimator • Interior Designer • Landscape Architect • Survey Technician • Surveyor
	8	English 8 (1120)	Math 8 OR Algebra I (3130)	Physical Science (4125)	Civics & Economics (2357)	Health, PE, Family Life (7200)	Technological Systems (8463) .5 Elective OR Digital Technology Foundations (6160) .5 Elective	
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 <input checked="" type="checkbox"/> or other assessment (please indicate): _____								
SECONDARY	9	English 9 (1130)	Algebra I (3130) OR Geometry (3143)	Biology (4310)	World History/ Geography I (2215)	<ul style="list-style-type: none"> • Economics and Personal Finance (6120) • Health & PE (2 years) • Foreign Language (3 years) 	Technical Drawing/Design (8435) Architectural Drawing/Design (8437)	<ul style="list-style-type: none"> • Entrepreneur • Restoration Technician • Mason • Plumber, Pipefitter • Tile Installer • Architect • Architectural Drafter • Building Code Inspector • Civil Engineer • Cost Estimator • Interior Designer • Landscape Architect • Survey Technician • Surveyor
	10	English 10 (1140)	Geometry (3143) OR Algebra II (3135)	Earth Science (4210)	World History/ Geography II (2216)	Other Electives to Complement Pathway (Core Academic and CTE): <ul style="list-style-type: none"> • Entrepreneurship (9093) • Advanced Entrepreneurship Education (9094) • Computer Information Systems, Advanced (6613) • Accounting (6320) • Advanced Accounting (6321) • Principles of Business and Marketing (6115) • Cybersecurity Fundamentals (6302) 	Materials and Processes (8433)	
	11	English 11 (1150)	Algebra II (3135) OR Advanced Mathematics (3160)	Chemistry (4410)	US/VA History (2360)		Construction Technology (8431)	
	12	English 12 (1160) OR DE ENG 111-112	Mathematical Analysis/Pre-Calculus (3162) OR DE MTH 161	Physics (4510)	US/VA Government (2440)		Computer Information Systems (6612) Business Management (6136) 18 week Business Law (6132) 18 week	
High school courses in the pathway offered locally for college credit should be coded: DE (Dual Enrollment) and/or VC (Validated Credit)								
List related certifications/credentials approved by VDOE and offered locally: http://www.cteresource.org/apg (Go to Certification – License Section)						Additional Learning Opportunities: CTSO Organization(s): <input type="checkbox"/> DECA <input type="checkbox"/> Educators Rising <input checked="" type="checkbox"/> FBLA <input type="checkbox"/> FCCLA <input type="checkbox"/> FFA <input type="checkbox"/> HOSA <input type="checkbox"/> SkillsUSA <input checked="" type="checkbox"/> TSA		
Financial Literacy Certification (W/ SE), Fundamental Business Concepts, MOS Certification, OSHA 10 Certification, and Workplace Readiness Skills (WRS) for the Commonwealth (CTECS)						Work-Based Learning: <input checked="" type="checkbox"/> Job Shadowing <input checked="" type="checkbox"/> Service Learning <input checked="" type="checkbox"/> Mentorship <input checked="" type="checkbox"/> School-Based Enterprise <input checked="" type="checkbox"/> Externship <input checked="" type="checkbox"/> Entrepreneurship <input checked="" type="checkbox"/> Internship <input type="checkbox"/> Clinical Experience <input checked="" type="checkbox"/> Youth Registered Apprenticeship <input checked="" type="checkbox"/> Apprenticeship <input type="checkbox"/> Cooperative Education		
Postsecondary: Placement Assessments such as Virginia Placement Test or Accuplacer						College Entrance Exams such as ACT & SAT		

POST-SECONDARY	SAMPLE POSTSECONDARY PROGRAMS RELATED TO THIS CAREER PATHWAY Individual plans must include locally agreed-upon courses at the postsecondary level			
	Pathway	Associate Degree, College Certificate, or Apprenticeship	Bachelors Degree	Postgraduate Degree
	Construction (Management)	Construction Management – AAS Construction or Carpentry Apprenticeship	Locally Determined	Locally Determined

College: [Northern Virginia Community College](#)

School Division(s): [Alexandria City Public Schools](#)

Postsecondary: Placement Assessments such as the Virginia Placement Test or COMPASS

POSTSECONDARY - COMMUNITY COLLEGE or APPRENTICESHIP - Determined Locally	Semester	English	Mathematics	Science	Social Studies	Required Courses or Recommended Electives				
	POSTSECONDARY PLAN OF STUDIES MUST INCLUDE POSTSECONDARY ACADEMIC, CTE, AND OTHER ELECTIVE COURSES APPROPRIATE FOR AN ASSOCIATE DEGREE.									
Year 1 1 st Semester	(3 credits): ENG 111 College Composition I OR ENG 115 Technical Writing				SDV 100 College Success Skills (1 credit)	BLD 101 Construction Management I 3 credits	BLD 165 Construction Field Operations 2 credits	ARC 133 Construction Methodology & Procedures I 3 credits	CAD 165 Architectural Blueprint Reading 3 credits	
Year 1 2 nd Semester		MTH 1 Pre-Calculus 3 credits		Humanities/ Fine Arts Elective 3 credits		BLD 200 Sustainable Construction 2 credits	BLD 215 OSHA 30 Construction Safety 2 credits	BLD 231 Construction Estimating I 3 credits		
Year 2 1 st Semester	CST Elective 3 credits (CST 100, CST 110, CST 126, or CST 229)					BLD 241 Construction Managing III 3 credits	ARC 225 Site Planning and Technology 3 credits	FIN 215 Financial Management 3 credits		
Year 2 2 nd Semester		Choose One (4 credits): ARC 243 Environmental Systems OR Technical Elective CAD 202, CAD 203, CAD 260, CIV 172, EGR 130, EGR 240, or EGR 246, BLD 247			Social/Behavioral Sciences Elective HIS 102 3 credits	BLD 242 Construction Management IV 3 credits	BLD 247 Construction Planning and Scheduling 3 credits	ARC 134 Construction Methodology & Procedures II 3 credits		

College courses offered locally in the high school for college credit should be coded: DE (Dual Enrollment) and/or VC (Validated Credit)

Related Industry Certifications Available:

OSHA 30 Certification

Additional Suggested Learning Opportunities: Work-Based Learning:

- | | | | |
|---|---|--|---|
| <input checked="" type="checkbox"/> Job Shadowing | <input checked="" type="checkbox"/> Service Learning | <input checked="" type="checkbox"/> Mentorship | <input checked="" type="checkbox"/> School-Based Enterprise |
| <input checked="" type="checkbox"/> Externship | <input checked="" type="checkbox"/> Entrepreneurship | <input checked="" type="checkbox"/> Internship | <input type="checkbox"/> Clinical Experience |
| <input type="checkbox"/> Cooperative Education | <input checked="" type="checkbox"/> Youth Registered Apprenticeship | <input checked="" type="checkbox"/> Apprenticeship | |

UNIVERSITY
University/College: Virginia Tech
Degree or Major: [Bachelor of Science Degree in Construction Engineering and Management](#) (CEM) or Building Construction
Number of Articulated CC Credits: 56 OR +6 DE from high school = 62

Notes: Transfer is not the primary purpose of an AAS program, but NOVA is planning an articulation agreement with Virginia Tech. However, probably only the general education, maybe a few other courses will be transferable. The articulation agreement will offer students to transfer this career-oriented program pathway from a two-year AAS to a four-year bachelor's degree in Construction Engineering and Management or Building Construction.