



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Design & Preconstruction		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Introduction to Drafting	Intermediate Drafting Design	Advanced Drafting Design	
Structural Drafting	Introduction to Architectural Design	Intermediate Architectural Design	Advanced Architectural Design	
Three-Dimensional Solid Model Design I	Three-Dimensional Solid Model Design II	Safety and Health Regulations	Senior Career Pathway Project-Architecture & Construction	
CTE and /or Foreign Language and /or Arts Education (3 credits)				
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Building Construction		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Construction Site Preparation & Foundations	Construction Framing	Construction Finishing and Interior Systems	
Safety and Health Regulations	Senior Career Pathway Project-Architecture & Construction	NCCER Building Construction 1-Construction Framing	NCCER Building Construction 2-Site Preparation	
NCCER Building Construction 3- Construction Finishing				
CTE and /or Foreign Language and /or Arts Education (3 credits)				
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Cabinetmaking		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Cabinetmaking I	Cabinetmaking II	Cabinetmaking III	
Safety and Health Regulations	Senior Career Pathway Project-Architecture & Construction			
CTE and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Carpentry		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Carpentry I	Carpentry II	Carpentry for Industrial Specialties	
Carpentry for Commercial Specialties	Carpentry for Residential Interiors	Carpentry for Residential Exteriors	Safety and Health Regulations	
Senior Career Pathway Project-Architecture & Construction	NCCER Carpentry 1	NCCER Carpentry 2	NCCER Carpentry 3	
CTE and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	- Articulation -	Postsecondary	SkillsUSA
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Masonry		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Introduction to Masonry	Block Wall Construction	Residential Masonry I	
Residential Masonry II	Composite Masonry Construction	Commercial Masonry	Masonry in High-Rise Construction	
Masonry Special Application and Finishes	Specialty Masonry Construction	Health and Safety Regulations	Senior Career Pathway Project- Architecture & Construction	
NCCER Masonry 1	NCCER Masonry 2	NCCER Masonry 3		
CTE and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Electrical		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Electrical Technology	Basic Wiring	Residential Wiring	
Industrial Wiring	Commercial Wiring	Motor Control	Advanced Motor Control	
Electromechanical Controls	National Electrical Code and Journeyman's Preparation	Direct Current	Alternating Current	
Safety and Health Regulations	Senior Career Pathway Project-Architecture & Construction	NCCER Electrical Technologies 1	NCCER Electrical Technologies 2	
NCCER Electrical Technologies 3				
CTE and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –		Postsecondary
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>		<u>Provider</u>	



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: Welding		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Introduction to Welding	Applied Welding I with Plasma Arc Cutting	Applied Welding II with Carbon Arc Cutting	
Applied Welding III with Groove Welds & Inspection	Applied Welding IV Advanced Groove Welds & Testing	Gas Metal Arc Welding	Flux Core Arc Welding	
Gas Tungsten Arc Welding I NCCER Welding 1	Gas Tungsten Arc Welding II NCCER Welding 2	Safety and Health Regulations NCCER Welding 3	Senior Career Pathway Project- Architecture & Construction NCCER Welding 4	
CTE and /or Foreign Language and /or Arts Education (3 credits)				
Work-based Learning	Secondary	- Articulation -	Postsecondary	
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	<u>Certification</u>	<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction

Pathway Name: Plumbing

9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools	
English 9	English 10	English 11	English 12		
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus		
Physical Science	Biology	Chemistry	Physics or Botany		
World History	United States History I	United States History II	Government/Economics		
Career Preparedness	Health/Elective	Elective	Elective		
Physical Education	Elective	Elective	Elective		
Architecture, Construction, and Manufacturing	Plumbing & Pipefitting I	Plumbing & Pipefitting II	Plumbing & Pipefitting III		
Safety and Health Regulations	Senior Career Pathway Project-Architecture & Construction				
CTE and /or Foreign Language and /or Arts Education (3 credits)					Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –	Postsecondary		
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA	
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers		
	<u>Certification</u>		<u>Provider</u>		



Recommended Program of Study for: Architecture and Construction



Career Cluster: Architecture and Construction		Pathway Name: HVACR		
9th Grade	10th Grade	11th Grade	12th Grade	Postsecondary Schools
English 9	English 10	English 11	English 12	
Algebra I	Geometry	Algebra II with Trig	Pre-Calculus or Calculus	
Physical Science	Biology	Chemistry	Physics or Botany	
World History	United States History I	United States History II	Government/Economics	
Career Preparedness	Health/Elective	Elective	Elective	
Physical Education	Elective	Elective	Elective	
Architecture, Construction, and Manufacturing	Introduction to Heating, Ventilation, Air Conditioning, and Refrigeration	Basic Compression Refrigeration	Heating, Ventilation, Air Conditioning, and Refrigeration Maintenance	
Introduction to Electricity for Heating, Ventilation, Air Conditioning and Refrigeration Systems	Heating, Ventilation, Air Conditioning and Refrigeration Electrical Components & Controls	Refrigerants	Commercial Refrigeration	
Heating & Heat Pump Systems	Safety and Health Regulations	Senior Career Pathway Project- Architecture & Construction	NCCER HVAC 1	
NCCER HVAC 2	NCCER HVAC 3			
CTE and /or Foreign Language and /or Arts Education (3 credits)				Career and Technical Student Organizations
Work-based Learning	Secondary	– Articulation –		Postsecondary
Job Shadowing Internship / Work Experience Career Day / Fair Field Trips / Guest Speakers				SkillsUSA
CTE Assessments	Available Industry Certifications		High Wage-High Skill- High Demand Careers	
	Certification	Provider		