



Architecture and Construction

Unitec Sending Schools Career Cluster Program of Study

This Program of Study Template can serve as a guide, along with other career planning materials, as you continue your career path. Courses listed within this plan are only recommended coursework and should be individualized to meet each learner's educational and career goals.

****Ask your high school counselor to help you fill in the required courses you need to graduate.****

Grade	English 8 semesters	Math 6 semesters	Science 6 semesters	Social Studies 6 semesters	Other Required Courses, Recommended Electives	Career & Technical Courses and/or Degree Major Courses @ Unitec	SAMPLE Occupations Relating to this Pathway
9	Comm Arts I	High School Math	High School Science Course	High School S.S. Course	Personal Finance Computer Science	See high school counselor for course offerings.	Occupations Requiring Postsecondary Education
10	Comm Arts II	High School Math	High School Science Course	High School S.S. Course	Personal Finance Computer Science	See high school counselor for course offerings.	
11	Comm Arts III & Comm Arts elective *English Comp I *Public Speaking	Pre-College Algebra or high school math course *College Algebra, *College Trig.	High School Science Course *MFH College General Biology – West County, North County Hubs *Farmington, Fredericktown, Potosi course offered	High school S.S. Electives – History & Government *College Am History I & II, *Political Systems	*Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment)	*Unitec Course Offerings: Construction Building Electrical *Farmington High School PLTW *Ask high school counselor for additional course offerings	
12	Senior Comm Arts & Comm Arts elective *English Comp II *Intro to Literature	Pre-College Algebra high school courses *College Algebra, *College Trig.	High School Science Course *MFH College Intro to Chemistry – West County, North County, Fredericktown, Postosi Hubs *Farmington Course offered	High school S.S. Electives –History & Government *College American History I & II, *Political Systems	*Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment)	*Unitec Course Offerings: Construction Building Electrical *Farmington High School PLTW *Ask high school counselor for additional course offerings	

***Dual Credit or Dual Enrollment College courses can often be substituted for high school credit. Check with your Counselor.**

Assessments/Certifications: College Placement Assessments, Compass, ACT, SAT

Clubs/Extracurricular Activities: **Ask your Counselor what is available at your school.**


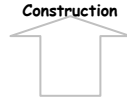

Work-Based Learning: After School Employment Internship/Mentorship Job Shadowing Service Learning Supervised Business Experience

Additional Learning Opportunities:

CTSO(s): FBLA FCCLA FFA

Click here to see
**Degrees &
Certificates**
offered by
Mineral Area College.

Careers in designing, planning, managing, building and maintaining the built environment.

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Career Specialties / Occupations</p>	<p>Architect • Architectural and Civil Drafter • Civil Engineer (structural, geotechnical, transportation, etc.) • Civil Engineering Technician •</p> <p><i>Code Official</i> •</p> <p><i>Computer Aided Drafter (CAD)</i> • Cost Estimator • Drafter • Electrical and Electronic Engineering Technician • Electrical Engineer (electronics, security, telecommunications) • Environmental Designer • Environmental Engineer (hydro engineering, acoustical, etc.) • Environmental Engineering Technician • Fire Prevention and Industrial Engineer •</p> <p><i>Interior Designer • Landscape Designer •</i> Landscape Architect • Materials Engineer • Mechanical Drafter • Mechanical Engineer (HVAC, plumbing, fire protection, etc.) •</p> <p><i>Modeler (traditional and computer)</i> Planner/Designer • Preservationist • Programmer • Protection Engineer • Regional and Urban</p> <p><i>Renderer (traditional and computer)</i> •</p> <p><i>Specifications Writer • Building</i> Surveying and Mapping Technician • Surveyor •</p>	<p>Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Craft Laborer • Construction Engineer • Construction Foreman • Construction Inspector • Construction Manager • Drywall Installer • Education and Training Director/Coordinator • Electrical & Power Transmission Installer • Electrician • Electronic Systems Technician • Elevator Installer • Equipment and Material Manager • Estimator • Explosives Worker • Field Supervisor • Floor Layer • General Contractor/Builder • Glazier • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscape/ Groundskeeper • Lineworker • Manufacturer's Representative •</p> <p>NOTE: General contractors/Builders and Specialty contractors typically own the contracting company.</p>	<p>Mason • Millwright • Painter • Paperhanger • Pipe Fitter • Pipelayer • Pipeline Installer Plasterer/Drywall • Plumber • Preservationist • Project Inspector • Project Manager • Roofer • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm Systems Installer • Service Contractor • Sheetmetal Worker • Specialty Contractor • Specialty Trades Subcontractor • Steamfitter • Subcontractor • Superintendent • System Installer • Terrazo Worker and Finisher • Tile and Marble Setter •</p>	<p>Boilermaker • Carpenter • Carpet Installer • Concrete Finisher • Construction Manager • Construction Engineer • Construction Foreman • Construction Inspector • Cost Estimator • Demolition Engineer • Drywall Installer • Electrician • Electrician • Elevator Installer • Environmental Engineer • Equipment and Material Manager • Estimator • Facilities Engineer • Field Supervisor • General Maintenance Contractor • Glazier • Hazardous Materials Remover • Heating, Ventilation, Air Conditioning and Refrigeration Mechanic • Heavy Equipment Operator • Highway Maintenance Worker • Hydro Testing Technician • Insulation Worker • Insulation Worker • Iron/Metalworker (structural and reinforcing) • Landscape/ Groundskeeper • Maintenance Estimator • Maintenance Planner/Scheduler • Manufacturer's Representative •</p>	<p>Mason • Millwright • Operating Engineer • Paperhanger • Pipe Fitter • Pipelayer • Plumber • Preservationist • Project Inspector • Project Manager • Refractory Technician • Relay Technician Reliability Engineer • Remodeler • Restoration Technician • Safety Director • Sales and Marketing Manager • Scheduler • Security and Fire Alarm System Installer • Security Controls Manager • Service Contractor • Sheetmetal Worker • Specialty Trades Contractor • Steamfitter • Subcontractor • Substation Mechanic Superintendent • System Installer • Terrazo Worker and Finisher • Thermal Control Technician • Tile and Marble Setter • Utility Metering & Reg. Technician Wastewater Maintenance • Technician •</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pathways</p>	<p style="text-align: center;">Design/Pre-Construction</p> 	<p style="text-align: center;">Construction</p> 			<p style="text-align: center;">Maintenance/Operations</p> 
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Cluster K&S</p>	<p style="text-align: center;">Cluster Knowledge and Skills</p> <p style="text-align: center;">♦ Academics ♦ Communications ♦ Problem Solving and Critical Thinking ♦ Information Technology Applications ♦ Systems ♦ Safety, Health and Environmental ♦ Leadership and Teamwork ♦ Ethics and Legal Responsibilities ♦ Employability and Career Development ♦ Technical Skills</p>				