**Architecture and Construction**

**Perryville CTC 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.**

<table>
<thead>
<tr>
<th>Grade</th>
<th>English 8 semesters</th>
<th>Math 6 semesters</th>
<th>Science 6 semesters</th>
<th>Social Studies 6 semesters</th>
<th>Other Required Courses, Recommended Electives</th>
<th>Career &amp; Technical Courses and/or Degree Major Courses @ Perryville CTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Comm Arts I</td>
<td>High School Math</td>
<td>High School Science Course</td>
<td>High School S.S. Course</td>
<td>Personal Finance Computer Science</td>
<td>See high school counselor for course offerings.</td>
</tr>
<tr>
<td>10</td>
<td>Comm Arts II</td>
<td>High School Math</td>
<td>High School Science Course</td>
<td>High School S.S. Course</td>
<td>Personal Finance Computer Science</td>
<td>See high school counselor for course offerings.</td>
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<tr>
<td>11</td>
<td>Comm Arts III &amp; Comm Arts elective *English Comp I *Public Speaking Pre-College Algebra or high school math course *College Algebra, *College Trig. High School Science Course *Online College Science Course *College American History I &amp; II, *Political Systems *Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment) *Perryville CTC Course Offerings: Construction Building *Ask high school counselor for additional course offerings</td>
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</tr>
<tr>
<td>12</td>
<td>Senior Comm Arts &amp; Comm Arts elective *English Comp II *Intro to Literature Pre-College Algebra high school courses *College Algebra, *College Trig. High School Science Course *Online College Science Course *College American History I &amp; II, *Political Systems *Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment) *Perryville CTC Course Offerings: Construction Building *Ask high school counselor for additional course offerings</td>
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</table>

*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.
### Sample Career Specialties / Occupations

<table>
<thead>
<tr>
<th>Pathways</th>
<th>Design/Pre-Construction</th>
<th>Construction</th>
<th>Maintenance/Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 4E5</td>
<td>Architect</td>
<td>Boilermaker</td>
<td>Mason</td>
</tr>
<tr>
<td></td>
<td>Architectural and Civil Drafter</td>
<td>Carpenter</td>
<td>Mason</td>
</tr>
<tr>
<td></td>
<td>Civil Engineer (structural, geotechnical, transportation, etc.)</td>
<td>Carpet Installer</td>
<td>Carpenter</td>
</tr>
<tr>
<td></td>
<td>Civil Engineering Technician</td>
<td>Concrete Finisher</td>
<td>Carpet Installer</td>
</tr>
<tr>
<td></td>
<td>Code Official</td>
<td>Construction Craft Laborer</td>
<td>Concrete Finisher</td>
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<tr>
<td></td>
<td>Computer Aided Drafter (CAD)</td>
<td>Construction Engineer</td>
<td>Construction Engineer</td>
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<tr>
<td></td>
<td>Drafter</td>
<td>Construction Foreman</td>
<td>Construction Foreman</td>
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<tr>
<td></td>
<td>Electrical and Electronic Engineering Technician</td>
<td>Construction Inspector</td>
<td>Construction Inspector</td>
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<tr>
<td></td>
<td>Electrical Engineer (electronics, security, telecommunications)</td>
<td>Construction Manager</td>
<td>Construction Manager</td>
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<td></td>
<td>Environmental Designer</td>
<td>Construction Manager</td>
<td>Construction Manager</td>
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<td>Environmental Engineer (hydro engineering, acoustical, etc.)</td>
<td>Director/Coordinator</td>
<td>Director/Coordinator</td>
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<tr>
<td></td>
<td>Environmental Engineering Technician</td>
<td>Director/Coordinator</td>
<td>Director/Coordinator</td>
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<td></td>
<td>Fire Prevention and Industrial Engineer</td>
<td>Director/Coordinator</td>
<td>Director/Coordinator</td>
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<td></td>
<td>Interior Designer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Landscape Architect</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Materials Engineer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Mechanical Drafter</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Mechanical Engineer (HVAC, plumbing, fire protection, etc.)</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Modeler (traditional and computer)</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Planner/Designer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Preservationist</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Programmer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td>Protection Engineer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Regional and Urban</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Renderer (traditional and computer)</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<td></td>
<td>Specifications Writer</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Surveying and Mapping Technician</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
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<tr>
<td></td>
<td>Surveyor</td>
<td>General Contractor/Builder</td>
<td>General Contractor/Builder</td>
</tr>
</tbody>
</table>

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

- Architect
- Architectural and Civil Drafter
- Civil Engineer (structural, geotechnical, transportation, etc.)
- Civil Engineering Technician
- Code Official
- Computer Aided Drafter (CAD)
- 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
- Interior Designer
- Landscape Designer
- Landscape Architect
- Materials Engineer
- Mechanical Drafter
- Mechanical Engineer (HVAC, plumbing, fire protection, etc.)
- Modeler (traditional and computer)
- Planner/Designer
- Preservationist
- Programmer
- Protection Engineer
- Regional and Urban Renderer (traditional and computer)
- Specifications Writer
- Surveying and Mapping Technician
- Surveyor

**NOTE:** General contractors/Builders and Specialty contractors typically own the contracting company.

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

- **Academics**
  - 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**
  - Employability and Career Development
  - Technical Skills
- **Communications**
  - Communications
  - Problem Solving and Critical Thinking
  - Information Technology Applications
  - Systems
- **Leadership and Teamwork**
  - Leadership and Teamwork
  - Ethics and Legal Responsibilities
  - Employability and Career Development
  - Technical Skills