# 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.**

<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 @ Unitec</th>
<th>SAMPLE Occupations Relating to this Pathway</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>
<td></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>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Comm Arts III &amp; Comm Arts elective</td>
<td>Pre-College Algebra or high school math course</td>
<td>High School Science Course</td>
<td>High school S.S. Electives – History &amp; Government</td>
<td>*Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment)</td>
<td>*Unitec Course Offerings: Construction Building Electrical *Farmington High School PLTW *Ask high school counselor for additional course offerings</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Senior Comm Arts &amp; Comm Arts elective</td>
<td>Pre-College Algebra high school courses</td>
<td>High School Science Course</td>
<td>High school S.S. Electives –History &amp; Government</td>
<td>*Personal Finance *Computer Science *CADD classes *Physics *Art/Drawing (Available for Dual Enrollment)</td>
<td>*Unitec Course Offerings: Construction Building Electrical *Farmington High School PLTW *Ask high school counselor for additional course offerings</td>
<td></td>
</tr>
</tbody>
</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.
### Careers in designing, planning, managing, building and maintaining the built environment.

- **Sample Career Specialties / Occupations**
  - Architect • Architectural and Civil Drafter • Civil Engineer (structural, geotechnical, transportation, etc.) • Civil Engineering Technician • Code Official • Computer-Aided Drafter (CAD) • 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 • 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 • Building Surveying and Mapping Technician • Surveyor •

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

### Cluster Knowledge and Skills
- **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

### Pathways
- **Design/Pre-Construction**
- **Construction**
- **Maintenance/Operations**