

**Construction Technology 1 & 2**  
**Scope & Sequence: Year 1**

Semester 1		Semester 2	
Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Technical Standards: 1.0 Professional Standards: 1.0, 4.0, 8.0</p> <p><b>Unit 1</b></p> <p><b>Basic Safety</b></p> <ul style="list-style-type: none"> <li>Maintain a safe work environment.</li> </ul> <p><b>*SP/2 Completion</b></p> <p>Technical Standards:3.1, 3.2, 5.3, 7.5 Professional Standards: 9.0</p> <p><b>Unit 2</b></p> <p><b>Introduction to Construction Math</b></p> <ul style="list-style-type: none"> <li>Measure accurately to 16<sup>th</sup> of an inch.</li> <li>Understand tape measure</li> <li>Use of squares ex. Framing square, speed square etc.</li> <li>Bill of materials.</li> <li>Determine area, volumes, perimeters, cost of materials, amount of waste and overage.</li> </ul>	<p>Technical Standards: 4.0 Professional Standards: 3.0, 9.0</p> <p><b>Unit 3</b></p> <p><b>Introduction to Construction Drawings</b></p> <ul style="list-style-type: none"> <li>Blueprint terms/component.</li> <li>Differentiate material types, sizes, and quantities.</li> <li>Scheduling/placing ex. Location of door openings.</li> <li>Scaling/types of scale.</li> </ul> <p>Technical Standards: 8.0, 9.0, 4.6 Professional Standards: 4.0, 5.0, 6.0, 2.0</p> <p><b>Unit 4</b></p> <p><b>Demonstrate Wall and Ceiling Framing</b></p> <ul style="list-style-type: none"> <li>Lay out wall lines; mark material.</li> <li>Advantage and disadvantages of metal vs wood.</li> <li>Calculate the materials required to frame walls and ceilings.</li> <li>Frame and/or illustrate a roof opening.</li> <li>Cut and install ceiling joists on a wood frame building.</li> </ul>	<p>Technical Standards: 2.0 Professional Standards: 4.0, 5.0, 6.0, 2.0</p> <p><b>Unit 5</b></p> <p><b>Operate Hand/Power Tools/Equipment</b></p> <ul style="list-style-type: none"> <li>Inspect use, maintain hand tools; power tools.</li> </ul> <p>Technical Standards: 7.0, 9.0 Professional Standards: 4.0, 5.0, 6.0, 2.0</p> <p><b>Unit 6</b></p> <p><b>Layout/Install Floor Systems; Frame/Finish a Roof</b></p> <ul style="list-style-type: none"> <li>Identify components of floor systems.</li> <li>Calculate the amount of material needed to frame a floor assembly.</li> <li>Demonstrate common methods of layout.</li> <li>Types of roofing materials ex. Felt, shingles, etc.</li> <li>Types of sheathing and coverings; describe common sheaths and coverings.</li> </ul>	<p>Technical Standards: 13.1- 13.5 Professional Standards: 4.0, 5.0, 6.0, 2.0</p> <p><b>Unit 7</b></p> <p><b>Assemble Piping, Waste, and Vent Distribution Systems</b></p> <ul style="list-style-type: none"> <li>Identify the major components of a drainage and water distribution system.</li> <li>Assemble a soil, waste, and vent/distribution system.</li> <li>Measure, cut, and join plastic and copper piping.</li> </ul> <p>Technical Standards: 4.1-4.4, 14.1-14.4 Professional Standards: 4.0, 5.0, 6.0, 2.0</p> <p><b>Unit 8</b></p> <p><b>Install Electrical Component/Systems; Use Plans, Specifications, Codes</b></p> <ul style="list-style-type: none"> <li>Differentiate material types, sizes and quantities.</li> <li>Blueprint terms/components symbols.</li> <li>Identify electrical service entrance requirements.</li> <li>Rough in electrical.</li> <li>Determine the correct wire size for a circuit.</li> </ul> <p><b>*NCCER Core Completion</b></p>