#### **Instructional Framework**

## ARIZONA CTE

#### **Interior Design**

50.0408.00

This Instructional Framework identifies, explains, and expands the content of the standards/measurement criteria, and, as well, guides the development of multiple-choice items for the Technical Skills Assessment. This document corresponds with the Technical Standards endorsed on July 17, 2022.

#### **Domain 1: Elements and Principles of Design** Instructional Time: 25 - 30% STANDARD 4.0 ANALYZE THE ELEMENTS AND PRINCIPLES OF INTERIOR DESIGN 4.1 Explain the importance of the key elements of design (e.g., color, Color space, form/shape, line, and texture) o Properties of color Hue Value Intensity Space Negative space Positive space Form/shape Line Horizontal Vertical o Diagonal Straight Curved Texture Visual Tactile Audible 4.2 Explain the importance of the key principles of design (e.g., balance, Balance rhythm, scale and proportion, and emphasis and harmony) Symmetrical Asymmetrical Radial Rhvthm Repetition Opposition

	<ul> <li>Gradation</li> <li>Radiation</li> <li>Transition</li> <li>Scale and proportion</li> <li>Rule of thirds</li> <li>Golden mean/Golden ratio</li> <li>Emphasis <ul> <li>Focal point</li> </ul> </li> <li>Harmony <ul> <li>Unity</li> <li>Variety</li> </ul> </li> </ul>
4.3 Explain how to evaluate design elements and principles in products (i.e., impact, contribution, budget, availability, sustainability, etc.)	<ul> <li>Impact</li> <li>Contribution</li> <li>Budget</li> <li>Availability</li> <li>Sustainability, etc.</li> </ul>
4.4 Explain the design principles of color (e.g., contrast, proximity, and balance)	<ul> <li>Contrast</li> <li>Value (dark/light)</li> <li>Complimentary colors</li> <li>Proximity</li> <li>Balance</li> </ul>
4.5 Differentiate among hue, value, and intensity	<ul> <li>Properties of color</li> <li>Hue</li> <li>Value</li> <li>Shade</li> <li>Tint</li> <li>Intensity</li> <li>Tone</li> </ul>
4.6 Explain the psychology of color (e.g., creates ideas, expresses messages, draws attention, and generates certain emotions)	<ul> <li>Creates ideas</li> <li>Expresses messages</li> <li>Draws attention</li> <li>Generates certain emotions</li> </ul>
4.7 Explore color schemes on the color wheel [e.g., complementary, triadic, analogous, achromatic (neutral), monochromatic, and split-complementary]	<ul> <li>Complementary</li> <li>Triadic</li> <li>Analogous</li> <li>Achromatic (neutral)</li> </ul>

Monochromatic
Split-complementary

## Domain 2: Materials and Finishes Instructional Time: 20 – 25%

Instructional Time: 20 – 25%	
STANDARD 5.0 EVALUATE FIBERS, TEXTILES, AND FABRICS IN INTERIO	R DESIGN
5.1 Distinguish among fibers, textiles, and fabrics	<ul> <li>Staple fibers</li> <li>Filaments</li> <li>Yarns</li> <li>Textiles <ul> <li>Wall coverings</li> <li>Window coverings</li> <li>Floor coverings</li> <li>Upholstery</li> <li>Bedroom/bathroom linens</li> </ul> </li> </ul>
5.2 Identify the sources, properties, and characteristics of natural and manufactured fibers	<ul> <li>Natural</li> <li>Cotton</li> <li>Linen</li> <li>Wool</li> <li>Manufactured</li> <li>Rayon</li> <li>Polyester</li> <li>Nylon</li> </ul>
5.3 Compare and contrast various fabric construction [e.g., woven, knit, and nonwoven (felt, vinyl, and leather)]	<ul> <li>Woven</li> <li>Weaves</li> <li>Basic</li> <li>Twill</li> <li>Satin</li> <li>Knit</li> <li>Nonwoven</li> <li>Felt</li> <li>Vinyl</li> <li>Leather</li> </ul>
5.4 Determine fabric characteristics based on finishes, label	Hand

specifications, and maintenance and care	<ul> <li>Wrinkle resistant</li> <li>Shrinkage</li> <li>Stain resistance</li> <li>Durability</li> <li>Fire retardant</li> </ul>
5.5 Evaluate fibers, textiles, and fabrics for specific end users	<ul> <li>Drapery fabric</li> <li>Upholstery fabric</li> <li>Bedroom and bath linens</li> <li>Wall coverings</li> <li>Floor coverings</li> </ul>
STANDARD 6.0 ANALYZE FURNITURE AND ACCESSORIES IN INTERIOR	DESIGN
6.1 Explain how technology, mass production, and prosperity have influenced architecture, furniture, and furnishings throughout history	<ul> <li>Industrial Revolution</li> <li>Assembly lines</li> <li>Computerized manufacturing</li> <li>3D printers</li> </ul>
6.2 Describe functional and visual considerations of different styles of architecture, interiors, furniture, and furnishings	<ul> <li>Architectural styles</li> <li>Roof styles</li> <li>Window styles</li> <li>Door styles</li> </ul>
6.3 Consider proper placement and space planning to meet needs of consumers including the aging population and the physically challenged	<ul> <li>Circulation patterns</li> <li>Family</li> <li>Work</li> <li>Guest</li> <li>Service</li> <li>Furniture arrangements</li> <li>Accessibility</li> </ul>
6.4 Compare characteristics of home furnishings and appliances (i.e., performance, safety, cost, quality, efficiency, space, etc.)	<ul> <li>Performance</li> <li>Safety</li> <li>Cost</li> <li>Quality</li> <li>Efficiency</li> <li>Space, etc.</li> </ul>
6.5 Describe the influence of art on interior design	Design styles

6.6 Consider accessories appropriate to design projects (i.e., measurement, placement, function, quality, cost, etc.)	<ul> <li>Measurement</li> <li>Placement</li> <li>Function</li> <li>Quality</li> <li>Cost, etc.</li> </ul>
STANDARD 7.0 ANALYZE MATERIALS AND PRODUCTS IN INTERIOR DE	SIGN
7.1 Differentiate among floor coverings according to performance, application, user, and location (i.e., tile, carpet, wood, etc.)	<ul> <li>Tile <ul> <li>Porcelain</li> <li>Ceramic</li> <li>Natural stone</li> </ul> </li> <li>Carpet <ul> <li>Wood</li> <li>Solid wood</li> <li>Engineered wood</li> </ul> </li> <li>Laminate</li> <li>Vinyl</li> <li>Linoleum</li> </ul>
7.2 Differentiate among wall and ceiling coverings according to performance, application, user, and location	<ul> <li>Ceiling tiles</li> <li>Wallpaper</li> <li>Interior latex paint</li> <li>Wood paneling</li> <li>Plaster</li> </ul>
7.3 Differentiate among window treatments according to performance, application, user, and location (i.e., upholstery vs. window covering fabrics)	<ul> <li>Draperies</li> <li>Curtains</li> <li>Sheer panels</li> <li>Blinds</li> <li>Shutters</li> </ul>
7.4 Apply guidelines in selecting lighting (i.e., natural vs. artificial, decorative vs. task lighting, etc.)	<ul> <li>Natural vs. artificial</li> <li>Layers of light         <ul> <li>Ambient/general lighting</li> <li>Task lighting</li> <li>Decorative/accent lighting</li> </ul> </li> </ul>
7.5 Explain green design and sustainability of interior materials and products	<ul><li>Recycled products</li><li>Renewable resources</li></ul>

	<ul> <li>Volatile organic compounds</li> <li>Sourcing locally</li> <li>Energy efficient</li> </ul>
7.6 Differentiate among kitchen and bath fixtures and equipment (i.e., plumbing, lighting, appliances, etc.)	<ul> <li>Plumbing</li> <li>Sinks</li> <li>Faucets</li> <li>Lighting</li> <li>Appliances</li> <li>Refrigerator</li> <li>Dishwasher</li> <li>Stove, etc.</li> </ul>

# **Domain 3: Design Development and Presentation Instructional Time: 20 – 25%**

### STANDARD 3.0 APPLY TECHNICAL DRAFTING AND MENTAL VISUALIZATION SKILLS TO INTERIOR DESIGN

3.1 Use drawing media, surfaces, and tools to create mental visualizations of one-, two-, and three- dimensional objects and environments (i.e., paper, pads, mat boards, charcoal, graphite pencils, colored and pastel pencils, clay, etc.)	<ul> <li>Paper</li> <li>Pads</li> <li>Mat boards</li> <li>Charcoal</li> <li>Graphite pencils</li> <li>Colored and pastel pencils</li> <li>Clay, etc.</li> </ul>
3.2 Use interior design software to create and maintain accurate design drawings (i.e., AutoCAD, Chief Architect, Planner 5D, Homestyler, etc.)	<ul> <li>AutoCAD</li> <li>Chief Architect</li> <li>Planner 5D</li> <li>Homestyler, etc.</li> </ul>
3.3 Identify common measurement tools and their functions in design (i.e., architect scale, ruler, T-square, lettering guide, etc.)	<ul> <li>Architect scale</li> <li>Ruler</li> <li>T-square</li> <li>Lettering guide</li> </ul>
3.4 Explain the function of line types and weights in drawings	<ul> <li>Floor plan and wall elevation lines</li> <li>Solid line</li> <li>Dashed line</li> </ul>

	<ul> <li>Long dash, short dash</li> </ul>
3.5 Practice architectural lettering on drawings and renderings	<ul> <li>Lettering guide</li> <li>Print         <ul> <li>Capital letters</li> <li>Lowercase letters</li> </ul> </li> </ul>
3.6 Explain the function of various types of annotations used in design documents (i.e., keynotes, legends, schedules, symbols, title block, key, etc.)	<ul> <li>Keynotes</li> <li>Legends</li> <li>Schedules</li> <li>Symbols</li> <li>Title block</li> <li>Key, etc.</li> </ul>
STANDARD 9.0 EXECUTE AND PRESENT AN INTERIOR DESIGN CLIENT	PROJECT
9.1 Complete the programming phase of the design project (e.g., develop the problem statement, gather information, and research the solution)	<ul> <li>Programming phase</li> <li>Develop the problem statement</li> <li>Gather information</li> <li>Interview client</li> <li>Inventory of existing resources</li> <li>Research the solution</li> <li>Prepare design concepts</li> <li>Summary and presentation to client</li> </ul>
9.2 Select materials according to the programming and the project (i.e., woods, metals, glass, stone, textiles, etc.)	<ul> <li>Woods, metals, glass, stone, textiles, etc.</li> <li>Furniture</li> <li>Wall coverings</li> <li>Flooring</li> <li>Window treatments</li> </ul>
9.3 Identify factors that influence budgeting considerations (i.e., material costs, return of investment, resale, labor, etc.)	<ul> <li>Material costs</li> <li>Return of investment</li> <li>Resale</li> <li>Labor, etc.</li> </ul>
9.4 Explore color schemes for rooms utilizing material, paint, wallcovering, flooring, and fabric samples	• 60% - 30% - 10% rule
9.5 Generate schedules to fulfill the client's needs, including the delivery of goods (finished product) to the customer	<ul><li>Project timeline</li><li>Budget</li></ul>

	Invoices
9.6 Consider human factors related to space planning (i.e., anthropometrics, ergonomics, clearances, person vs. public space, etc.)	<ul> <li>Anthropometrics</li> <li>Ergonomics</li> <li>Clearances</li> <li>Person vs. public space</li> <li>Universal design, etc.</li> </ul>
9.7 Present the project to the customer using traditional or digital medium to illustrate the relationship between materials, color, lighting, and texture and the final effect they create on particular space	<ul> <li>Traditional         <ul> <li>Design board</li> <li>Color board</li> <li>Mood board</li> </ul> </li> <li>Computer Aided Drafting (CAD)</li> <li>Physical samples         <ul> <li>Fabric</li> <li>Flooring</li> <li>Paint</li> </ul> </li> </ul>

Domain 4: Basic Math and Construction Instructional Time: 15 - 20%	
STANDARD 2.0 APPLY BASIC MATH SKILLS TO THE EVERYDAY WORK	OF INTERIOR DESIGN
2.1 Use standard interior specifications (i.e., widths/heights for countertops, chairs, tables, desks, barstools, etc.)	<ul> <li>Widths/heights</li> <li>Doorways</li> <li>Countertops</li> <li>Chairs</li> <li>Tables</li> <li>Desks</li> <li>Barstools, etc.</li> </ul>
2.2 Recognize units of measurement (e.g., English vs. Metric)	<ul> <li>Imperial Measurement (English)</li> <li>yard</li> <li>feet</li> <li>inches</li> <li>Metric</li> </ul>
2.3 Read tape measures and architectural scales to solve math-related problems	Imperial Measurement     Feet

	o Inches
2.4 Convert units of measurement between feet and inches and inches and feet	<ul> <li>Equivalents <ul> <li>1 yard = 3 feet</li> <li>1 foot = 12 inches</li> </ul> </li> <li>Multiplication</li> <li>Division</li> <li>Fractions</li> </ul>
2.5 Use numeric, symbolic, and/or graphic representations to express problems in interior design (e.g., scale of furniture and materials, floor plans, etc.)	<ul> <li>Scale of furniture and materials</li> <li>Floor plans</li> <li>Interior elevations</li> </ul>
2.6 Estimate basic material quantities and costs for a design project (i.e., square footage, yardage, fabric needs, rolls, etc.)	<ul> <li>Square footage</li> <li>Yardage</li> <li>Fabric needs</li> <li>Rolls, etc.</li> </ul>
2.7 Draw a room to scale with walls and openings, including floor plan and elevation	<ul> <li>Architectural symbols</li> <li>Architect scale</li> <li>Architecture templates</li> <li>Furniture templates</li> </ul>
2.8 Calculate measurements for the area and/or perimeter of a room	<ul> <li>Area = Length (L) x Width (W)</li> <li>Perimeter = 2L + 2W</li> </ul>
2.9 Determine the fabric needed for drapes and upholstery	<ul><li>Standard fabric widths</li><li>Fabric selvedge edge</li></ul>
STANDARD 8.0 ANALYZE CONSTRUCTION AND BUILDING SYSTEMS RELATED TO INTERIOR DESIGN	
8.1 Interpret construction documents (i.e., elevations, floor plans, etc.)	<ul><li>Elevations</li><li>Floor plans, etc.</li></ul>
8.2 Interpret dimensions, symbols, legends, scales, and directions	<ul> <li>Scale</li> <li>Measurements</li> <li>Architectural symbols</li> <li>Legends</li> <li>Keys</li> </ul>
8.3 Discuss structural building components and systems [i.e.,	Foundation

foundation, framing, interior systems (plumbing, heating, ventilation, and air-conditioning), etc.]	<ul> <li>Framing</li> <li>Interior systems         <ul> <li>Plumbing</li> <li>Heating, ventilation, and air-conditioning</li> <li>Electrical, etc.</li> </ul> </li> </ul>
8.4 Discuss life safety considerations (i.e., entrances, exits, smoke detectors, sprinkler systems, fire extinguishers, etc.)	<ul> <li>Entrances</li> <li>Exits</li> <li>Smoke detectors</li> <li>Sprinkler systems</li> <li>Fire extinguishers</li> <li>Building codes, etc.</li> </ul>
8.5 Consider architectural detail of an interior (i.e., walls, doors, windows, fireplaces, stairs, etc.)	<ul> <li>Walls</li> <li>Doors</li> <li>Windows</li> <li>Fireplaces</li> <li>Stairs</li> <li>Interior moldings, etc.</li> </ul>

Domain 5: Interior Design Profession Instructional Time: 5 - 10%	
STANDARD 1.0 ANALYZE THE INTERIOR DESIGN PROFESSION	
1.1 Trace the interior design history timeline and origins	<ul> <li>Prehistoric</li> <li>Ancient Civilizations</li> <li>Victorian Era</li> <li>Art Nouveau</li> <li>Arts &amp; Crafts</li> <li>Art Deco</li> <li>Post-modern 1940-present</li> </ul>
1.2 Describe human behavior factors [e.g., physical, physiological (Maslow's Hierarchy), and cultural] and trends (i.e., housing market, social media, model homes, etc.) influencing the interior design industry	<ul> <li>Human behavior factors</li> <li>Physical</li> <li>Physiological (Maslow's Hierarchy)</li> <li>Cultural</li> <li>Economics</li> <li>Trends</li> </ul>

	<ul><li>Housing market</li><li>Social media</li><li>Model homes, etc.</li></ul>
1.3 Explain the importance of client relations, marketing practices, business negotiations, retail, and customer service in the interior design industry	<ul> <li>Communication skills</li> <li>Basics of retail (National Retail Federation (NRF) Rise Up)</li> <li>Customer service skills</li> <li>Visual merchandising</li> </ul>
1.4 Identify essential skills needed by interior designers (i.e., creative eye and attention to detail, trend awareness, knowledge of sustainable practice, communication skills, organizational skills, etc.)	<ul> <li>Creative eye and attention to detail</li> <li>Trend awareness</li> <li>Knowledge of sustainable practice</li> <li>Communication skills</li> <li>Organizational skills, etc.</li> </ul>
1.5 Identify local/federal laws and regulations and license requirements in the interior design industry	<ul> <li>Americans with Disabilities Act</li> <li>International Building Code</li> <li>Zoning laws</li> </ul>
1.6 Explore interior design professional organizations [e.g., American Society of Interior Designer (ASID) and American Institute of Graphic Arts (AIGA)]	<ul> <li>American Society of Interior Designer (ASID)</li> <li>American Institute of Graphic Arts (AIGA)</li> <li>National Kitchen and Bath Association (NKBA)</li> </ul>
1.7 Explore interior design resources (i.e., furniture and industry websites, magazine publications, business professionals, etc.)	<ul> <li>Furniture and industry websites         <ul> <li>My Object of Desire, Eporta Marketplace, Artemest, etc.</li> </ul> </li> <li>Magazine publications         <ul> <li>Architectural Digest, Elle Decor, Interior Design Magazine, etc.</li> </ul> </li> <li>Apps         <ul> <li>Homestyler 3D, Houzz, Morpholio Board, etc.</li> </ul> </li> <li>Business professionals</li> </ul>
1.8 Identify components of an electronic and/or hard copy professional portfolio (i.e., work examples, projects, achievements, etc.)	<ul> <li>Work examples</li> <li>Projects</li> <li>Achievements</li> <li>Photos</li> </ul>
1.9 Explore careers in interior design (i.e., residential, contract, hospitality, specialized design, etc.)	<ul> <li>Residential</li> <li>Commercial</li> <li>Hospitality</li> <li>Specialized design</li> </ul>

	<ul><li>Furniture design</li><li>Lighting design</li><li>Visual merchandising</li></ul>
1.10 Identify the largest employers of interior designers (e.g., Specialized Design Services, Furniture Stores, Home Furnishing Stores, Architectural Services, and Residential Building Construction)	<ul> <li>Specialized Design Services</li> <li>Flooring design service</li> <li>Retirement community design service</li> <li>Furniture Stores/Home Furnishing Stores</li> <li>Architectural Services</li> <li>Residential Building Construction</li> <li>Builder showrooms</li> </ul>

