

Instructional Framework

Stagecraft

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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 reviewed on July 13, 2025.



ARIZONA DEPARTMENT OF
EDUCATION



Domain 1: Shop and Safety

Instructional Time: 25 - 35%

STANDARD 2.0 EMPLOY SAFETY PROTOCOLS AND PROCEDURES RELATED TO A LIVE, STAGED PRODUCTION

2.1 Recognize the risks and hazards associated with live, staged productions [i.e., set construction (heights, lifting, tools/equipment); special effects (pyrotechnics, fog and smoke machines, water effects); use of electricity (electrical shock, power outages, lighting equipment); sound equipment (excessive noise, trip hazards); costumes and makeup (allergic reactions, heat stress); stage movement (trap doors and pits, crowded spaces); emergency preparedness (fire safety, first aid); etc.]

Stage Safety

- Pre-production
 - Load in
 - Proper bracing
 - Securing loose cables/trip hazards
 - Properly spiking
 - Chemical safety
 - First-aid kits supply check
- Production
 - Low light setting safety (i.e., glow tape, spotter, etc.)
 - Obstructed view
 - Recognizing spike marks
 - Spill safety
 - Backstage etiquette
- Post-production
 - Strike
 - Material cleanup

2.2 Use personal protective equipment (PPE) appropriate for the task

- Types of PPE (eye, face, head, foot, leg, hand, arm, hearing and respiratory protection)
- Proper fit, inspection and care

2.3 Comply with OSHA safety standards and regulations [i.e., lifting practices, fall prevention and protection, fire safety, ladder safety, electrical safety, machine guarding, ergonomics, handling and storage of hazardous materials, safety data sheets (SDS), etc.]

- Purpose and role of Occupational Safety and Health Administration (OSHA)
- Ladder
 - Proper footing
 - Use of correct ladder height for task
 - Duty rating (weight and classification)

	○ Fall prevention ● Scaffolding and/or lifts ○ 18+ for lift operation ○ Awareness of harnessing/Personal Fall Restraint Systems (PFRS) ● Hazardous materials identification ○ SDS location ○ Composition/Information on ingredients ○ First-aid measures ○ Firefighting measures ○ Accidental release measures ○ Per- and polyfluoroalkyl substances (PFAS) "forever chemicals" ● Exposure to chemicals, blood, bodily fluids, aerosols, etc. ● Fire extinguisher locations and ratings
2.4 Recognize the National Electrical Code (NEC) (e.g., guidelines for electrical design, installation, and inspection to protect people and property from electrical hazards)	● Purpose of the National Electrical Code (NEC)
STANDARD 3.0 DEMONSTRATE ESSENTIAL PRODUCTION TECHNIQUES RELATED TO SCENERY CONSTRUCTION AND RIGGING	
3.1 Practice housekeeping and safety protocols and procedures related to scenery construction and rigging [i.e., use correct and appropriate personal protective equipment (PPE); clean, maintain, and properly store tools, equipment, and materials, apply correct verbal safety warnings while using counterweight systems, etc.]	● Use proper PPE ● Construction ○ Proper use and storage of tools ○ Visual safety inspection (i.e., clear workspace, guards, tables, fences, mounting/locks, cables and blades in good repair, etc.) ○ Care of paint tools ■ Proper storage of paint ■ Care and storage of tools and shop materials ● Rigging ○ Visual inspection of line set ○ Proper loading procedures ○ Call out responses for flying in and flying out ○ Load/Weight verification ○ Proper training to operate counterweight system ○ Trained personnel only signage ● Soft goods (flame retardancy/proofing) ● Proper hanging of soft goods
3.2 Determine production design documentation as it applies to scenery construction and rigging (i.e., floor/ground plan, front elevation, rear elevation, paint elevation, sectional drawings, rigging plot, construction	● Reading a ruler and a scale ruler ○ Conversions ● Types of elevations

drawings, etc.)	● Key/legend, symbols and representations
3.3 Use appropriate industry-standard terminology to communicate clear expectations of the scenery construction and rigging process	● Identify items by appropriate name
3.4 Identify scenery construction and rigging materials, tools, techniques, and hardware (i.e., lumber, metal, fabrics, power tools, hand tools, measuring tools, fasteners, rigging hardware, etc.)	● Types of lumber ○ Dimensional lumber ○ Sheet goods ● Types of hardware ○ Drywall screws ○ Box nails ○ Bolts, nuts, and washers ● Types of tools ○ Hand tools ○ Power tools ○ Pneumatic tools ● Rigging ○ Wire rope clamps (i.e., Crosby, etc.) ○ Shackles ○ Carabiners ○ Wire rope sleeves ○ Thimbles ○ Slings ○ Turnbuckles ○ Cheese boroughs ○ Nicopress ● Measuring tools ○ Speed square ○ Tape measure ○ Laser measure ○ Framing square ○ Leveler
3.5 Perform construction techniques using materials, tools, techniques, and hardware appropriate for the task	● Apply construction techniques
3.6 Identify scenic painting materials, tools, techniques, and supplies (i.e., paints, primers, sealants, brushes, rollers, sprayers, drop cloths, painter's tape, cleaning supplies, etc.)	● Types of paint tools and supplies ● Types of paints ○ Latex ○ Acrylic ○ Oil-based ● Brush maintenance and cleanup ● Ventilation

3.7 Apply fundamental scenic art techniques (i.e., painting, dry brushing, sponging, stippling, scumbling, spattering, graining, etc.)	• Color mixing • Wet blending • Aging and weathering
3.8 Demonstrate safe stage production rigging practices [i.e., restricted access, signage, proficiency in knot tying (clove hitch, half hitch, bowline), counterweight systems, motorized systems, rigging hardware, equipment inspection and tracking, etc.]	• Proficiency ◦ Sheet bend ◦ Clove hitch ◦ Half hitch ◦ Bowline • Parts and components of a counterweight system • Types ◦ Single purchase systems ◦ Double purchase systems • Motorized (i.e., packaged hoists, line shafts, loft blocks and chain motors) • Load rating awareness
3.9 Demonstrate the application of safety protocols, identification, and proper handling techniques for various types of soft goods used in stage productions (i.e., fire-resistant drapes and drops; legs, borders, scrims, drops, cyclorama, tabs, travelers, etc.)	• Proper hanging and folding techniques

Domain 2: Management and Operations

Instructional Time: 25 - 35%

STANDARD 7.0 DEMONSTRATE ESSENTIAL PRODUCTION, TECHNIQUES RELATED TO THE USE OF STAGE LIGHTING

7.1 Practice housekeeping and health and safety protocols and procedures related to stage lighting (i.e., follow safety guidelines for handling, operating, and maintaining lighting equipment; secure, organize, and regularly inspect for any faults or damage; wear appropriate protective gear and ensure proper ventilation to avoid overheating, etc.)	• PPE • Tool safety at heights • Electrical safety ◦ Safe circuiting procedures ◦ Known maximum loads (i.e., lighting fixtures per circuit, etc.)
7.2 Determine production design documentation as it applies to stage lighting (i.e., lighting plots, cue sheets, equipment lists, maintenance schedules, special instructions for handling and operating the stage lighting equipment, etc.)	• Light plot (scale and title block) ◦ Industry standard symbols ◦ Dimmer ◦ Channel ◦ Color ◦ Instrument ◦ Gobo ◦ Gel

	• Magic sheet • Light schedule ○ Wattage ○ Address ○ Accessory ○ Dimmer ○ Channel ○ Color ○ Instrument ○ Focus area
7.3 Use appropriate industry-standard terminology to communicate clear expectations of the stage lighting process (i.e., intensity, color temperature, fade, spotlight, wash, beam angle, rigging, gel, follow spot, channel, DMX address, etc.)	• Identify items by appropriate name
7.4 Identify stage lighting fixture types and their uses (i.e., conventional vs. intelligent fixtures, halogen, ARC, LED, wash vs. spot, etc.)	• Identify instruments by use ○ Ellipsoidal ○ Fresnel ○ Parabolic Aluminized Reflector (PAR)/Multi-PAR ○ Far cyc ○ Automated lights/other devices • Conventional vs. light-emitting diode (LED) formats
7.5 Recognize basic principles of power compatibility and load distribution	• Ohm's law ○ Solving for power (P) in Watts (W) - $P = \text{Current (I) in Amps (A)} * \text{Voltage (E) in Volts (V)}$ ○ Solving for resistance (R) in Ohms (Ω) - $R = E \div I$
7.6 Discuss major stage lighting protocols (i.e., DMX512, sACN, Art-Net, etc.)	• Digital Multiplex (DMX) • Networking
7.7 Identify essential stage lighting accessories (i.e., barn doors, irises, top hats, gel frames, gobos, etc.)	• Safety cables
7.8 Apply the fundamentals of hanging and focusing stage lighting instruments (i.e., circuiting and cable management, differentiating between power and data cables, etc.)	• Optimizing the field • Shutter and beam • Safety cabling • Types of connectors (i.e., Edison, powerCON/eCON, twist lock, stage pin types, DMX 3 pin vs. 5 pin, etc.)
7.9 Apply the fundamentals of stage lighting board operation and addressing (i.e., parking, patching, cueing, differentiating between channels and addresses, effectively using faders and submasters, etc.)	• Multi-address/attribute instruments • Recording and editing cues (cue mode and tracking mode) • Control protocols [Latest Takes Precedence (LTP)/Highest Takes Precedence (HTP)]

	• Effects
7.10 Explore basic troubleshooting of stage lighting equipment (i.e., incorrect addressing, tripped circuit breaker, burned out lamp, etc.)	• Air gaps
STANDARD 8.0 DEMONSTRATE ESSENTIAL PRODUCTION TECHNIQUES RELATED TO THE USE OF STAGE AUDIO	
8.1 Practice housekeeping and health and safety protocols and procedures related to stage audio (i.e., electrical, rigging, follow safety guidelines for handling, operating, and maintaining audio equipment; secure, organize, and regularly inspect for any faults or damage; wear appropriate protective gear and ensure proper ventilation to avoid overheating, etc.)	• Ohm's law • Safe decibel levels • Rigging-appropriate hardware • Proper cabling and storage • Cable management and safety
8.2 Determine production design documentation as it applies to stage audio (i.e., stage plots, mic schedules, equipment labeling, etc.)	• Block diagram ○ Understand basic universal electrical symbols ○ Title block • Signal flow diagram • Cue sheets
8.3 Use appropriate industry-standard terminology to communicate clear expectations of the stage audio process [i.e., gain, feedback, equalization (EQ), compression, reverb, delay, monitor mix, front of house (FOH), soundcheck, wireless systems, etc.]	• Identify items by appropriate name • Headset protocol
8.4 Differentiate between various types of audio equipment, cords, and their specific uses (i.e., microphones, speakers, amplifiers, peripherals, etc.)	• Microphone ○ Dynamic ○ Condenser ○ Lavalier ○ Boundary ○ Hanging ○ Handheld ■ Pick-up patterns • Speakers for output (i.e., active, passive, monitor, main, full range, subwoofer, etc.) • Peripherals for input (i.e., laptop, cd player, etc.) • Effects and recording • Communication system • Assisted listening device
8.5 Identify the key components of a stage audio system (i.e., audio console, cabling connections, signal flow, differences between analog and digital audio systems, show control software, etc.)	• Show control software ○ Cue-based, multimedia playback software (i.e., QLab, etc.) ○ Digital audio editor and recording software (i.e., Audacity, etc.)

	○ Digital audio workstation (DAW) software (i.e., Pro Tools, Dolby Logic Pro, etc.)
8.6 Apply the fundamentals of operating a sound board and playback equipment (i.e., mixing audio signals, adjusting levels, applying effects, managing playback devices, etc.)	● Signal path (input, processing, amplification, output) ● Console ○ Channel control ○ Output control ○ Main ○ Auxiliary ○ Phantom power ● Types of cables and uses ● Types of connectors and uses ● Define production playback software and capability
8.7 Apply the fundamentals of lavalier placement and use (i.e., acquiring consent, clipping into wigs, bodypack safety, mic tape, etc.)	● Sweat protector ● Placement ○ Wig ○ Costume ○ Face ● Cable management
8.8 Explore basic troubleshooting of stage audio equipment (i.e., patching, signal flow, power supply, batteries, etc.)	● Gain structure ● Ground lift
STANDARD 9.0 DEMONSTRATE ESSENTIAL PRODUCTION TECHNIQUES RELATED TO STAGE MANAGEMENT	
9.1 Monitor and enforce all housekeeping, health and safety protocols, and procedures across the production team and cast	● OSHA and PPE ● Emergency procedure documentation ● Emergency contact sheets
9.2 Manage stage equipment and systems during rehearsals and performances (i.e., set changes, rolling platforms, fly systems, rigging, turntables, etc.)	● Scenery ○ Storage ○ Tracking shifts
9.3 Develop an agenda for safety meetings for performers and crew members	● Consider who should be involved in the meeting ● Include content to be covered
9.4 Coordinate production meetings (i.e., identify stakeholders including crew and designers, take and distribute meeting notes, identify action items and responsible parties, etc.)	● Types of stage manager reports
9.5 Determine and produce documentation as it applies to stage management (i.e., prompt book, daily reports, schedules, tracking documents, etc.)	● Spreadsheets ● Word processing ● Document sharing ● Communication via email/apps

9.6 Oversee the care and organization of performance spaces and work areas (i.e., booth, prop table, general backstage, etc.)	• Set change list/shift plot • Pre-production checklist • Proper method to sweep/mop stage
9.7 Establish and monitor proper backstage decorum (i.e., dressing room, workshops, wings, etc.)	• Being engaged in the production and process • No phones backstage • Limited talking • Maintain clean and safe stage and wings
9.8 Perform managerial tasks of rehearsals and performances (i.e., call times, blocking, line notes, rehearsal coordination, documentation, etc.)	• Attendance tracking • Pre-rehearsal and performance preparation/duties
9.9 Demonstrate how a show is called based on a prompt book (i.e., standbys, calling cues, communication, monitoring the live production, etc.)	• Technical cue verbiage • Headset etiquette

Domain 3: Theatrical Techniques

Instructional Time: 20 - 30%

STANDARD 4.0 APPLY ESSENTIAL PRODUCTION TECHNIQUES RELATED TO COSTUME CONSTRUCTION

4.1 Practice housekeeping and safety protocols and procedures related to costume design and construction (i.e., work area maintenance, material storage, tool and equipment safety, personal protective equipment (PPE), safety signage, etc.)	• First aid • Hygienic maintenance • Clean and orderly work area • Chemical handling and storage • Hot plate/iron and steamer safety
4.2 Determine production design documentation as it applies to costume design and construction (i.e., script breakdown, character sheets, costume plots, fabric and material swatches, budget and financial projections, construction notes and patterns, schedules, contact information, etc.)	• Renderings/sketches • Measurement sheets
4.3 Use appropriate industry-standard terminology to communicate clear expectations of the costume measurement and fitting process (i.e., acquiring consent, measurement protocols, fitting sessions, alterations, quick change, costume parade, etc.)	• Identify items by appropriate name
4.4 Identify costume construction materials, tools, and hardware (i.e., fabric, interfacing, fabric shears, hot glue gun, sewing machine, dress form, needle and thread, safety pins, tape measure, iron and ironing board; zippers, elastic, buttons, and hooks; wire, EVA foam, etc.)	• Measuring tools ○ Seam gauge ○ Flexible measuring tape • Seam ripper • Fabric marking

	○ Chalk ○ Fabric markers ○ Fabric pencils ● Thimble ● Steamers ● Sewing machine components ○ Bobbin ○ Hand wheel ○ Presser foot ○ Take-up lever ○ Foot pedal ○ Reverse stitch ● Hot glue to connect Ethylene Vinyl Acetate (EVA) foam vs. contact cement
4.5 Apply appropriate costume construction techniques based on the type of material(s) being used	● Hand sewing vs. machine sewing ● Fabric variations ● Types of threads
4.6 Demonstrate foundational sewing skills (i.e., machine sewing, hand sewing, blind hem stitch, French seam, buttonhole stitch, topstitching, basting stitch, whip stitch, running stitch, back stitch, zigzag stitch, etc.)	● Seam allowance ● Hemming
4.7 Explain symbols and markings on a pattern	● Grain line ● Fold line ● Center front or back ● Seam allowance ● Stitching line ● Darts ● Buttons and buttonholes ● Dots ● Notches ● Size variation cut lines
4.8 Construct a costume using a pattern (i.e., read pattern symbols, adapt a pattern to a design, pattern layout, tracing and cutting, fitting adjustments, seam finishing, pattern matching, etc.)	● Pin and sew fabric according to pattern markings and instructions
4.9 Describe the process of cleaning, repairing, and maintaining costumes during and after the run of a production	● Costume plot ● Emergency sewing kit backstage ● Sort/Organize costumes ● Daily hygienic maintenance

STANDARD 5.0 APPLY ESSENTIAL PRODUCTION TECHNIQUES RELATED TO HAIR, MAKEUP, AND APPLICATION

5.1 Practice housekeeping and health and safety protocols and procedures related to hair and makeup application, and removal (i.e., allergies and sensitivities of performers, hygiene for hands and makeup supplies, personal makeup, care of makeup, wig maintenance, disinfecting haircare items, etc.)	● Cross-contamination prevention ○ No sharing tools ○ No sharing makeup ○ Checking for allergies to materials ● Hygienic maintenance
5.2 Determine production design documentation as it applies to hair and makeup application, and removal (i.e., script breakdown, character sheets, makeup charts, hair and wig charts, production lists, application and removal protocols, budget and financial projections, schedules, maintenance instructions, supplier contact information, etc.)	● Renderings ● Makeup plot
5.3 Use appropriate industry-standard terminology to communicate clear expectations of the hair and makeup application and removal process (i.e., acquiring consent, patch test, sanitation protocol, application techniques, removal process, touchups, continuity, etc.)	● Identify items by appropriate name ● Quick-change procedures
5.4 Identify hair and makeup materials, tools, and equipment suitable for different hair styles, texture, and skin types (i.e., heat styling tools, combs and brushes, hair extensions and wigs, hair color products, foundation, concealers, primers, setting sprays, brushes and sponges, lip products, makeup mirrors, airbrush makeup kits, sanitation tools, makeup organizers. etc.)	● Hair preparation and styling ○ Wig application and wig caps ○ Hairpins and securing tools ○ Hair products (i.e., gel, hairspray, mousse, etc.) ● Facial hair application ● Latex ● Spirit gum/spirit gum remover ● Prosthetic adhesive ● Putty (derma wax) ● Makeup removal ● Brush and tool sanitation ● Hygiene protocols
5.5 Apply hair and makeup choices that complement both the character(s) and the performer in the production (i.e., foundation, lipstick, blush, eyeshadow, eyeliner, mascara, hair styling, wigs and hairpieces, etc.)	● Cream-based, pancake, greasepaint ● Prosthetics ● Foundation/concealer ● Contouring/highlighting ● Stippling ● Eye makeup (i.e., eyeliner, eyeshadow, mascara, etc.) ● Lip color ● Special effects makeup ● Makeup removal and touch-ups

STANDARD 6.0 DEMONSTRATE ESSENTIAL PRODUCTION, ACQUISITION, AND UTILIZATION TECHNIQUES RELATED TO THE USE OF PROPERTIES

6.1 Practice housekeeping and safety protocols and procedures related to properties design, construction, acquisition, and utilization (i.e., use of personal protective equipment (PPE), weapon safety, prop tracking, prop etiquette, emergency preparedness, sanitation protocols, material storage, waste management, regular inspections, etc.)	• PPE • Safety Data Sheets (SDS) • First aid • Visual safety inspection (i.e., clear workspace, guards, tables, fences, mounting/locks, cables and blades in good repair, etc.)
6.2 Determine production design documentation as it applies to properties (i.e., properties plot, rental agreements, budget, etc.)	• Properties (Prop) list • Prop acquisition (pull, build, borrow, buy, or rent) • Prop shift/tracking plot
6.3 Use appropriate industry-standard terminology to communicate clear expectations of the properties design, construction, acquisition, and utilization process (i.e., prop list, prop plot, strike, load-in, load-out, tech rehearsal, blocking, cue sheet, prop master, scenic designer, fabrication, etc.)	• Storage, maintenance, and safety
6.4 Identify the materials, techniques, tools, and hardware used in the construction of properties (i.e., wood, metal, fabric, and plastics; carpentry, welding, sewing, and painting; saws, hammers, screwdrivers, sewing machines, paint brushes; etc.)	• Foam • Glue gun • Heat gun • Hot wire foam cutter • Rotary tool
6.5 Construct or modify properties using materials, techniques, tools, and hardware appropriate for the task	• Cutting, measuring, and shaping tools • Fasteners and adhesives • Joinery and assembly techniques • Sanding, painting, and finishing • Fabrication and modification methods • Safety equipment and hardware installation
6.6 Organize and maintain properties for the duration of a show (i.e., arranging props for easy access, inspecting props to ensure they are in good condition, making necessary repairs or replacements, storage, labeling, etc.)	• Prop preset • Proper marking of a prop table/cabinet • Inventory/securing valuable props

Domain 4: Foundations and Careers

Instructional Time: 10 - 20%

STANDARD 1.0 RECOGNIZE THE CRUCIAL ROLE OF STAGECRAFT IN THE SUCCESS OF A LIVE, STAGED PRODUCTION

1.1 Identify the technical aspects of live stage production (e.g., safety protocols; scenery construction and rigging; costuming, hair, and makeup; props/properties management; stage lighting; sound equipment; and stage management during rehearsals and performances)	• Integrate all technical aspects to achieve a unified creative vision
1.2 Describe how design, planning, and execution are essential to successfully staging a live production	• Pre-production ○ Artistic/Director concept ○ Actively building the show ○ Rehearsal procedures • Production run ○ Running crew responsibilities • Post-production ○ Strike • Relationship between a design/planning/executing a production to its fruition
1.3 Use industry-standard stagecraft terminology	• Communicate using technical production terminology
1.4 Identify the roles and responsibilities of stagecraft professionals	• Theatre hierarchy

STANDARD 10.0 PRACTICE MARKETABLE PROFESSIONAL SKILLS RELATED TO STAGECRAFT

10.1 Demonstrate key interpersonal skills required in a technical production environment (i.e., teamwork, collaboration, flexibility, problem-solving, respectful and clear communication, etc.)	• Adaptability • Conflict resolution
10.2 Exhibit digital literacy skills related to stagecraft (i.e., detailed spreadsheets for budgeting, scheduling, and inventory tracking; documents professionally and consistently formatted; digital calendars for rehearsals, performances, and meetings; email that is clearly and professionally written with correct detail; social media platforms appropriately used to promote productions and engage with the audience, etc.)	• Commonly used software and apps for theatre
10.3 Describe the purpose, function, content, and format of a professional portfolio	• Portfolio specific to area • Digital vs. hard copy
10.4 Create a professional résumé	• Resume specific to area

	• Digital vs. hard copy
10.5 Identify resources for acquiring and maintaining a stagecraft-related career (i.e., internships, post-secondary education opportunities including scholarships, unions and professional affiliations, workshops and training programs, networking events, social media platforms, etc.)	• Strategies to research pathways of interest