Technical Production Guidelines and Responsibilities

This document outlines the guidelines and responsibilities that govern technical production for Western’s Department of Theatre and Dance.

Faculty, staff and students involved in technical production share responsibility for the safety of their show, crew, cast, audience, and the performance space itself. This includes being familiar with state regulations, University health and safety requirements and observing the following standards in all phases of the technical production process.

Technical production activities may involve dramatic, musical, dance, and operatic events involving performance before an audience. All productions must comply with these requirements, regardless of their scope or size.

Direct your questions or concerns to the Production Manager/Technical Director or Facilities Manager.

Aisles, Exits and Exit Ways:

• Aisles and exits may not be blocked by any object, for any reason, at any time. Nothing may be stored, even temporarily, in an exit way.

• All aisles, exits, and stairwell lights are to remain ON at all times. At no time may the house lights be fully blacked out, unless specific lighting for all aisles, exits, and stairs is provided. The edges of all stages, steps, and openings must be marked with glow tape, with a 1-inch strip of white paint or ½-inch striped marks every 12 inches.

• No audience standees are permitted in theater aisles at any time during a performance.

• Exit signs must remain lighted and visible at all times. No mirrors, drapes, or other items may be affixed to, block, or otherwise obscure visibility of the exits or exit signs.

• Fire exit doors, crash bars, door closure hardware, and hand railings may not be painted, covered, removed, or otherwise modified.
Property:

- All stage props and other materials that are purchased with Theatre Arts funds must be turned over to the department after the close of the production. Discuss these items with the Production Manager/Technical Director or Facilities Manager prior to strike.

- The use of stage properties that could be considered dangerous weapons (e.g. simulated knives, firearms, swords, etc.) may be subject to other University policies and should only be used by properly trained and/or certified individuals. Consult with Production Manager/Technical Director prior to acquisition and use.

Fire Safety:

- The University provides a sufficient number of appropriate fire extinguishers to each theater and assembly area. Fire extinguishers must be readily accessible and available at all times.

- Fire extinguishers must be left on their wall mounts or cabinets at all times and may not be used as door stops or for any other purpose.

- Fire protection and life safety devices (e.g. AED) may not be disabled or in any way tampered with.

- Prior permission is required by Production Manager/Technical Director Use before using open flames, cigarettes, electronic cigarettes, other smoking materials, torches, candles, explosives, flash powder, pyrotechnics, firearms, and the like. Electronic substitutes should be considered first.

- Use of fog and hazer machines requires pre-approval from the Production Manager/Technical Director or Facilities Manager prior to use and must be used according to the manufacturer’s written instructions and warnings.

- Highly combustible or flammable items are not permitted. The offstage side of all non-treated scenic materials must be back painted - an opaque coat of latex paint or two coats of clear water based polyurethane are acceptable. At no time are untreated raw wood surfaces acceptable.
• All fabrics, bed clothes, muslin flats, and other scenery must be treated with flame retardants with the exception of actor handled properties. The Production Manager/Technical Director or Facilities Manager provides training and advice on how to obtain and apply fire retardants. Flame retardant projects must be limited to a total of no more than 100 square feet of material per production. Contact the Production Manager/Technical Director or Facilities Manager for approval prior to acquisition and use of materials requiring flame retardants.

• Stage Managers, under the supervision of the Production Manager/Technical Director or Facilities Manager, must conduct and document a pre-production fire drill with all members of the cast and support staff. A list of all participants shall be included.

Lighting and Electrical Devices:
• Lighting and electrical devices must be commercially available, plug-based products that require no field wiring. All electrical devices must be Underwriter’s Laboratory (UL) listed and tagged. Exceptions to these basic electrical safety rules will only be considered after consultation with the Production Manager/Technical Director, Facilities Manager, EHS and perhaps Bellingham Fire Department. Any actual wiring must be performed by a licensed electrician.

• All electrical extension cords must be fully insulated, with three prong grounded connectors. Lightweight “zip cords” and flat wire cords are not allowed.

• Lighting, sound equipment, and rigging may not be affixed to fire sprinkler pipes.

• Any floor-run temporary wire or cable runs must be securely taped to the floors.

• Theatrical lighting and sound equipment must have safety cables securing the equipment to any elevated supporting structure.

• Light fixtures without lenses must have a safety screen securely fastened to the lighting fixture to protect the exposed lamp.

• Rigging over the audience seating area is prohibited. Exceptions must be approved by the Production Manager/Technical Director and Facilities Manager.
(Marcus and Fred to discuss this one) Where used, lighting towers over 10 feet tall must be secured at the top and secured or sufficiently weighted at the bottom to prevent falling. Lighting towers or booms up to ten feet tall and/or with up to four lights must have at least 125 pounds of counter-weight secured to the base. The use of towers or booms greater than 10 feet high or with more than four lights is prohibited at (Where?).

• Strobe lights may only be used in a production if their use is described in all programs, posted in the entry and lobby area, and announced directly to the audience during the pre-show public announcement. This is to ensure the safety of audience members with certain pre-existing ocular or neurological conditions.

Painting:
• When permitted, scenic painting may only occur in authorized work areas with appropriate supervision.

• Only water-based paints, stains and coatings may be used for scenic flats, platforms, backdrops, and props, etc.

• Painting must be done only in well-ventilated areas, with adequate protection against splashes and spills. Drips and spills must be cleaned up immediately.

• Used or unwanted paints must be disposed of promptly and properly. For water-based paints, cans should be opened and the paint allowed to evaporate to dryness, and then discarded as trash. Neither paint nor any other materials may be discarded down the drain. Potentially toxic materials may not be put into the trash. Instead, contact Western’s EHS to 650-3064 to arrange for a waste pick-up.

Safety Evaluations:
• All students planning productions must coordinate all aspects of their project with the Production Manager/Technical Director and Facilities Manager.

• Student productions and special events may be subject to a pre-production fire and life safety evaluations by the Production Manager/Technical Director and/or Facilities Manager to ensure compliance with University health and safety requirements. The chair and/or director must attend these inspections.
• Western EHS conducts safety evaluations when specialized technical review is required.

Scenery:
• (Marcus and Fred to discuss this one) The use of scenery in most venues at Western is limited to hand props and furniture. Platforms, flats, and more complex scenery may be used in the (Where?). Exceptions will be evaluated by the Production Manager/Technical Director or Facilities Manager on a case by case basis.

• When scenery construction is permitted, it must:
  o Ensure the safety of the cast, crew, and audience, and be adequately secured;
  o Be pre-approved by the Production Manager/Technical Director and Facilities Manager, following submission of a suitable plan that details construction methods, labor skills available, and materials to be used. Resources and skills must be compatible with the scale of the planned work;
  o Occur only in an authorized work area with prior approval and appropriate supervision. Construction is prohibited in all other locations;
  o Occur with students wearing all appropriate personal protective equipment (e.g., hard hats, safety goggles) as required by the work; and
  o Be constructed in a safe and responsible manner.

• Environmental effects using such materials as water, dirt, and sand require special consideration and will be evaluated by the Production Manager/Technical Director on a case-by-case basis.

Seating Areas for Audiences:
• Audience capacity will vary depending on configuration of the seating area of the venue. Audience occupancy may not exceed the posted limits. (Not posted now – Should it be?)

• All temporary audience seating configurations must be approved by the Production Manager/Technical Director.

Structural Platforms, Railings, Risers, Stages, Stairs, and Other Elevated Stage Equipment:
• All elevated surfaces or potential fall exposures must be reviewed in advance by the Production Manager/Technical Director or Facilities Manager. It may also be reviewed by Western EHS.
Platforms, risers, stages, stairs, and other elevated equipment on stage are generally prohibited in all productions, except those constructed and installed directly under the supervision and approval of the Production Manager/Technical Director or Facilities Manager. Exceptions are rare and will be evaluated on a case by case basis.

Where platforms, risers, or stages are permitted, they must be designed to support an anticipated load of at least 100 pounds per square foot and constructed in a secure and stable manner that allows no movement.

Acting platforms higher than 24 inches are only permitted in the PAC Main Stage.

(Marcus and Fred to discuss this one) Acting platforms 36 inches or higher must have a railing on all exposed sides.

(Marcus and Fred to discuss this one) Railings must be designed at least 42 inches high above the platform or tread and capable of supporting an anticipated force of 200 pounds applied at any point, in any direction; cable or other non-rigid railings may show no more than 2-inch deflection under these test conditions. Railing systems must also have an upright support at least every 4 feet, a mid and top rail secured to the insides of the uprights, and the top rail surface must be smooth. Safety railing systems must be constructed in a secure and stable manner that allows no movement.

(Marcus and Fred to discuss this one) Acting area stairs higher than 24 inches must have a safety hand railing on at least one side. Acting area stair railings must be capable of supporting an anticipated load of 200 pounds per tread, and constructed in a secure and stable manner that allows no movement.

(Marcus and Fred to discuss this one) The edges of all stages, steps, and openings must be marked with glow tape throughout the space, with a 1-inch strip of white paint or ½-inch spiked marks every 12 inches.

Scaffold type platforms, railings, risers, stages, and stairs must be constructed entirely from commercially available products.

Tools and Equipment: (Marcus to review. This section MUST align with new rental/check-out process)
• A limited number of tools and equipment are available for loan from the Scene Shop. This inventory includes theatrical lighting and sound equipment, stage draperies, flats, platforms, and properties.

• The unsupervised use of unapproved powered cutting tools is prohibited and is grounds for immediate termination of the production. The only power tools that are approved for unsupervised use are jig saws, hand-held drills, screw guns, and orbital sanders.

• Students must wear all appropriate personal protective equipment (e.g., hard hats, safety goggles, gloves, respirators, etc.) when using tools and equipment. Sturdy close-toed shoes must be worn for any technical work including during load-in, strike, and focus. Hard hats must be worn when any work is being done overhead. Additional required personal protective equipment may be determined by the Production Manager/Technical Director or Facilities Manager.

Student Technical Production Activities

Student technical production activities are classified as follows based on their level of risk to the student and bystanders:

• Prohibited Student Activities
• Student Activities Requiring Supervision by University Employees
• Student Activities Requiring Supervision by “Student Leaders”
• Unsupervised Student Activities Requiring Pre-Approval

➤ PROHIBITED STUDENT ACTIVITIES

The following activities are not allowed in student productions.

Construction:

• Unsupervised use of stationary or hand held power tools with the exception of jig saws, hand-held drills, screw guns, and orbital sanders.

• Structural weight bearing scenery except with approval and supervision by the Production Manager/Technical Director or Facilities Manager.
• Audience structures higher than 24 inches without permanent 42-inch guard railing.

• Audience structures higher than 8 inches without intermediate steps

• More than two intermediate steps without permanent 42-inch hand railings

• Cable clamps or clips are not permitted as terminations in structural cables

**Electrical:**

• Use of devices, fixtures, switches, outlets, etc., that are not UL listed

• Electrical wiring of devices, fixtures, switches, outlets, etc.

• Electrical discharges, lighting, sparks, strobes, etc.

• Flat (EIC) Extension Cords

**Fire Safety:**

• Use of flammable materials or processes

• Use of combustible fabrics, woods, papers, etc. without flame retardants

• Use of pink and blue Styrofoam boards without prior permission by the Production Manager/Technical Director or Facilities Manager.

• Use of aerosol spray paints, sealers, or adhesives

• Pyrotechnics, flash powder, open flames, smoking materials, etc.

• Blocking or impeding aisles or doorways

• Crossing aisles or doorways with anything unsecured

• Tampering with, disabling, or blocking any fire protection device or sign
• Attaching anything to sprinkler pipes or sprinkler heads

• Audience occupancy in excess of posted limits of capacity. (Not posted now – Should it be?)

Production:
• Leaving a theater, Scene Shop, or rehearsal space unlocked while unattended

• Working alone in any theater, Scene Shop, or rehearsal space

• Working in a theater, Scene Shop, or rehearsal space before 7:00 am.

• Working in a theater, Scene Shop, or rehearsal space after 1:00 am.

• Performances that begin later than 10:00 pm

• Performances that end later than midnight

• No standees are allowed at rehearsals, staged readings or performances (okay now?)

• Photo calls between last performance and strike

• Parties and receptions held in theaters, Scene Shop, or rehearsal spaces without prior permission by the Production Manager/Technical Director or Facilities Manager.

Rigging:
• Flying or rappelling

• Lighting equipment without safety cables

• Lighting towers or booms over 10 feet without top support and all without bottom weight

Stage Action:
• Use of real fire arms or live ammunition
• Use of sharp blades, swords, knives, arrows, etc.

• Use of working bows or cross bows with string and arrows

• Use of nooses, tying-up or binding of persons

• Confining persons in any kind of locked enclosure

➢ STUDENT ACTIVITIES REQUIRING SUPERVISION BY UNIVERSITY EMPLOYEES

Student activities that require supervision by the Production Manager/Technical Director, Facilities Manager or their delegate.

Construction:
• Platform and stair construction/installation

• Structural construction/installation

• Structural guard railings

• Structural doors and windows

• Use of University stage trap systems

Hand Held Power Tools:
• Circular saw

• Pneumatic framing nail and staple guns

• Router

• Biscuit cutter

• Grinder

• Sawzall
Production:
- Certain Tech Rehearsals as determined by The Production Manager/Technical Director or Facilities Manager
- All load-ins, performances, and strikes
- Rehearsal involving staged combat or the use of stage weapons

Rigging:
- Scenic rigging and hardware
- Use of Nicopress and hanging irons
- Counter-weight rigging and hardware
- Spot-line rigging and hardware
- Dead-hung rigging and hardware
- All ladder and scaffold work over 15 feet
- Genie work over 25 feet high

Stationary Power Tools:
- Table saw
- Radial arm saw
- Miter (chop) saw
- Panel saw
- Metal cutting chop saw
- Band saw
• Drill press

• Joiner/shaper/planer

• Belt sander

➢ STUDENT ACTIVITIES REQUIRING SUPERVISION BY “STUDENT LEADERS”

Activities that require supervision by a fellow “student leader” who has been deemed qualified by the Production Manager/Technical Director.

Construction:
• Pre-approved platform/structural assembly. No assemblies will be put into service until inspected and approved by the Production Manager/Technical Director or Facilities Manager.

• University material lifts and beam hoists

• Flame proofing of materials

• Hanging doors, window, picture frames, moldings, etc.

Electrical:
• Electrical repairs to lighting and sound equipment

Hand Held Power Tools:
• Pneumatic brad/staple guns

Production:
• Certain technical rehearsals as determined by the Production Manager/Technical Director or Facilities Manager

Rigging:
• Hanging draperies, lights, sound, and props equipment
• Operation of counter-weight rigging

• Operation of spot-line rigging

• Operation of dead-hung rigging

• All ladder, scaffold and genie work over 15 feet high but under 25 feet high

➢ UNSUPERVISED STUDENT ACTIVITIES REQUIRING PRE-APPROVAL

Activities that may occur unsupervised by students who have been approved as qualified for the task by the Production Manager/Technical Director or a faculty advisor.

Construction:
• Scenic painting

• Set dressing

• Wall papering

Electrical:
• Cabling of theatrical lighting and sound equipment

Hand Held Power Tools:
• Use of jig saws, hand-held drills, screw guns, and orbital sanders

• Pneumatic ratchet

Production:
• Q-to-Q’s without rigging systems

• Rehearsals without rigging systems
• Sign-out and sign-in of drapery, lighting, sound, and props equipment

• Theater, shop, rehearsal space, and greenroom clean-ups

Rigging:

• All ladder and scaffold work under 15 feet

• Installation of lighting on booms under 10 feet and on floor mounts

This document should not be considered all inclusive. Good judgment and common sense should prevail on activities not addressed here. Western’s Department of Theatre and Dance reserves the right to alter these requirements without advanced notice or to conduct unannounced inspections of technical production activities at any time to ensure the safety of all persons involved.