



Audio Engineer Audition Requirements

Sound Reinforcement:

- Set-up and operate a sound reinforcement system for Concert Band, Jazz Ensemble and/or Popular Music Ensemble. Utilize proper gain structure and necessary microphones, mixing console, amplifiers, processors, equalizers, loudspeakers, monitors, snakes, cables, stands and auxiliary gear.
- Set up and use a small digital mixer system: Include 6 channels, one digital effects send and one monitor send. Demonstrate capability to remotely control sound with a portable device (iPad or equivalent).
- Set up and use a mid-size sound system: Include at least 16 channels, three effects sends and four monitor sends; large digital audio mixers; digital snakes. analog and/or digital consoles.
- Properly integrate delayed speakers into a system. Include proper levels of line array.
- Assemble and operate a dedicated large-format monitor system.

Microphones:

- Describe specifications/usage of dynamic, condenser, ribbon, electret, crystal, pressure zone (PZM) and/or newer microphones currently on the market. Interpret microphone polar pattern graphs.
- Interpret microphone polar pattern graphs. Consider directional characteristic, operating principle, response characteristic, and output characteristic.
- Select appropriate microphone(s) for a small and large ensemble (Jazz/Popular Music Ensemble, Concert Band). Consider vocalist/instrumentalist requirements, mic placement, and room acoustics.
- Demonstrate proper microphone positioning techniques.
- Identify and utilize wireless microphone components to include UHF and digital systems, transmitters, receivers, and antennas.
- Control multiple wireless systems and deconflict interference problems.
- Identify and utilize common components of an audio system to include digital audio consoles.

Auxiliary Components:

- Identify and utilize common components of an audio system to include digital audio consoles.
- Microphone pre-amps: Phantom power, reverse polarity and pad.
- Equalizers: Channel, 1/3 octave, parametric, shelving and or peak.
- Dynamics processors: Compressor/limiters & noise gates.
- Effects processors: Reverb, echo, delay.
- Power/active speaker: Connection, electrical source, common issues.

Equipment Maintenance:

- Demonstrate proper utilization of test equipment such as cable testers, polarity checkers, ground fault indicators, real-time analyzers, and volt/ohm meters.
- Analyze, troubleshoot, and remedy ground loops, missing ground, proper electrical phasing, buzz and hum in sound system, and wireless microphone malfunction.