Production Technology

Career Cluster	Arts, A/V Technology, Communications
Course Code	11160
Prerequisite(s)	***Recommended prerequisite courses:*** Intro to Arts, AV Tech & Communication
Credit	.5 or 1 credit
Program of Study and Sequence	Introduction to Arts, A/V Technology & Communications – Level I pathway course – **Production Technology**– Level III pathway course
Student Organization	International Thespian Association, United States Institute for Theatre Technology, Educational Theatre Association
Coordinating Work-Based Learning	None
Industry Certifications	None
Dual Credit or Dual Enrollment	None
Teacher Certification	Arts AV Technology Cluster Endorsement; Visual Arts Pathway Endorsement
Resources	Local postsecondary institutions, Standard Hyperlinks

Course Description: Production Technology introduces the student to the fundamental elements and principles of technical productions through applied learning that makes use of production facilities, operations, methods, and technologies used in professional, amateur, and educational theaters and production studios. The course includes a brief history of technical theatre and broadcast media. Students will learn the functions of the creative team, production staff, technicians and stage crew. Basic elements of scenic construction, design concepts, theatrical lighting, sound technologies, and production management will be introduced and assessed through practical application.

Program of Study Application: Production Technology is a level II course in the Arts, A/V Technology & Communications career cluster. Production Technology pertains to all four career pathways: Printing Technology/Journalism and Broadcasting; Telecommunications/A-V Technology and Film; Visual Arts; and Performance Arts.

PT 1 Identify the components of the performance space and potential safety hazards

Webb Level	Sub-indicator	Integrated Content
Level 1 Recall	PT 1.1 Explore, label, and define usage of all areas adjacent to the stage and within the performance space. - Recognize and explain terminology to define the space. - Create a scale model of the space and label it	EdTA, Theatre Projects, Portfolio
Level 1 Recall	PT 1.2 Identify all areas and equipment in a performance area that have potential to cause harm. - Identify safety precautions present in the theatre - Research history of famous theatre fires - Research present day fire codes - Demonstrate how to properly secure lighting fixtures - Demonstrate proper coiling and storage of cables	Fire codes

Notes

PT 2 Examine applications of past and present forms of technology in performing arts

Webb Level	Sub-indicator	Integrated Content
Level 3 Strategic Thinking	PT 2.1 Compare and contrast historical and contemporary performance spaces • Evaluate the impact of historical cultural and societal trends on performance venues of different time periods. • Create a PowerPoint or other visual presentation comparing performance spaces	Portfolio
Level 2 Skill/Concept	PT 2.2 Identify and define the properties of different performance spaces • Explain the desired intent of Amphitheatre, thrust stage, arena stage, and black box spaces. • Survey local performance venues and explain design function • Analyze YouTube or other online videos which show technical performance spaces.	Portfolio

Notes

PT 3 Describe career possibilities in technical production

Webb Level	Sub-indicator	Integrated Content
Level 2 Skill/Concept	PT 3.1 Research job titles and duties for technical personnel. • Define areas of responsibility and job skills of technical positions • Identify various duties of broadcast studio technical crews • Explain protocols for responding to other leaders on the technical team • Shadow a working production technical crew	SDMyLife, Jobs, EdTA, Sneak on the Lot, Theatre People
Level 2 Skill/Concept	PT 3.2 Demonstrate and practice basic crew functions • Practice follow spot operation • Demonstrate proper handling of stage lighting and electrical cables • Create hypothetical performance conditions and how to respond properly	YouTube

Notes

PT 4 Analyze scripts collaboratively with production crew for understanding of performance design and technical needs

Webb Level	Sub-indicator	Integrated Content
Level 2 Skill/Concept	PT 4.1 Identify specific cues for sound, lighting, and set derived from action or dialogue in the text • Highlight existing cues within stage directions • Analyze writing for perceived changes in mood	Portfolio, local postsecondary institutions
Level 3 Strategic Thinking	PT 4.2 Determine choices of production color and style which reflect intended mood, environment, and era • Research suggested era for correct color and construction design • Explain symbolism of color and the impact it has on mood and tone	Stage Color

Notes

PT 5 Plan scenic elements and set construction

Webb Level	Sub-indicator	Integrated Content
Level 1 Recall	PT 5.1 Identify industry terminology for scene design and construction • Classify basic terminology (e.g. unit set, box set, flat, platform, props)	CTE Online Video Production Model
Level 3 Strategic Thinking	PT 5.2 Design and create a floor plan for a specific production • Analyze and interpret floor plans, elevations and renderings of sample set designs • Prepare a sketch of a floor plan with given requirements • Create an original floor plan and translate it to the stage/studio floor (spike the plan)	Stage Plans
Level 2 Skill/Concept	PT 5.3 Demonstrate safety procedures for operation, maintenance, and storage of set construction items and tools • Justify reasoning behind safety procedures • Safely operate power tools	Tool Safety

Notes

PT 6 Construct various elements of set according to industry standards

Webb Level	Sub-indicator	Integrated Content
Level 3 Strategic Thinking	PT 6.1: Evaluate the function and application of framed scenery and build suitable set pieces • Build a scale model muslin flat • Design and construct studio flats, door and window flats, hard-covered flats • Create 3-dimensional pieces and props (e.g. doors, windows, rocks, columns, trees)	Set Construction, Theatre Sets
Level 3 Strategic Thinking	PT 6.2: Design and construct weight-bearing scenic units • Design platform suitable for elevated stage. • Compute the rise and run for stair stringers to be used onstage	
Level 2 Skill/Concept	PT 6.3 Apply knowledge of installation and rigging techniques to securely join set pieces • Demonstrate joining techniques for traditional flats (e.g. stiffening, bracing, rope rigging) • Demonstrate scene shifting techniques (e.g. shifting on the deck and rigging to fly)	Hanging and Attaching Hardware, ControlBooth
Level 2 Skill/concept	PT 6.4 Demonstrate various elements of scenic art • Present scene-painting techniques (e.g. dry-brushing, splattering, distressing, sponge) • Research and exhibit period-specific set dressing methods	What do scenic artists do?, Theatrical Scenery

Notes

PT 7 Design practical applications for lighting and sound

Webb Level	Sub-indicator	Integrated Content
Level 1 Recall	PT 7.1 Identify and recall names of common lighting instruments • Recognize types and functions of lights used in school's performance area	Stage Lighting Handbook
Level 3 Strategic Thinking	PT 7.2 Design lighting plot for screenplay or script • Observe and discuss recorded interview with professional lighting designer • Create and execute original lighting look based on previously analyzed script	Stage Lighting Primer
Level 2 Skill/concept	PT 7.3 Demonstrate proper procedure for hanging and focusing lighting instruments • Using proper safety techniques, hang lights according to plot • Experiment with lighting gels to create intended mood for scene	Stage Lighting Primer
Level 3 Strategic Thinking	PT 7.4 Develop sound design for production • Observe and discuss recorded interview with professional sound designer • Create a narrative using music excerpts and sound effects • Recall types of microphones and uses: dynamic/cardioid, wired and wireless, condense/cardioid, boundary, lavaliere.	Sound Design
Level 2 Skill/concept	PT 7.5 Observe and apply knowledge of sound and light board operation • Demonstrate sound board on/off, channel, sub, and component functions • Program multi-scene light plot	Sound Board Basics Light Board Basics

Notes